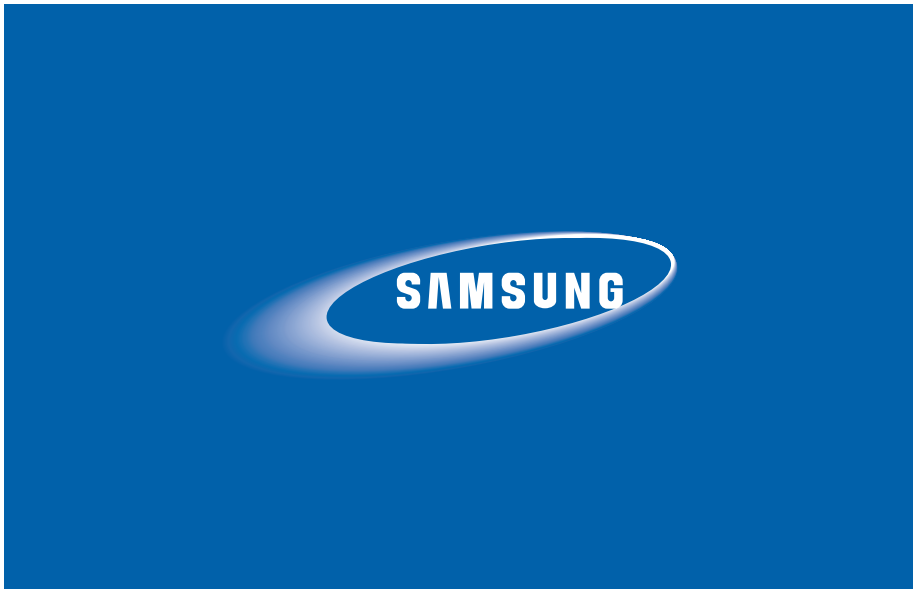

SERVICE MANUAL

S1030

SAMSUNG TECHWIN

C O N T E N T S

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Ⅰ. SPECIFICATION

1. CAMERA SPECIFICATION

Image Sensor
- Type : 1/1.8" CCD
- Effective Pixel : Approx. 10.1 Mega-pixel
- Total Pixel : Approx. 10.3 Mega-pixel

Lens
- Focal Length : SHD Lens f = 7.4 ~ 22.2mm (35mm film equivalent : 35 ~ 105mm)
- F No. : F2.8 ~ F7.1 (Wide), F5.1 ~ F13.1 (Tele)
- Digital Zoom : · Still Image mode : 1.0X ~ 5.0X
  · Play mode : 1.0X ~ 14.3X (depends on image size)

LCD Monitor
- 2.7" color TFT LCD (230,000 dots)

Focusing
- Type : TTL auto focus
- Range :

	Wide	Tele
Normal	80cm ~ infinity	
Macro	4cm ~ 80cm	50cm ~ 80cm
Auto Macro	4cm ~ Infinity	50cm ~ Infinity

Shutter
- Speed : 1 ~ 1/1,500 sec. (Manual : 8 ~ 1/1,500 sec.)

Exposure
- Control : Program AE
- Metering : Multi, Spot
- Compensation : ±2EV (0.5EV steps)
- ISO Equivalent : Auto, 80,100, 200, 400, 800, 1000

Flash
- Modes : Auto, Auto & Red-eye reduction, Fill-in flash, Slow sync, Flash off
- Range : Wide : 0.4m ~ 4.8m, Tele : 0.5m ~ 4.3m (ISO AUTO)
- Recharging Time : Approx. 5 sec.

Sharpness
- Soft, Normal, Vivid

Effect
- Normal, B&W, Sepia, Red, Blue, Green, Negative, RGB

White Balance
- Auto, Daylight, Cloudy, Fluorescent_H, Fluorescent_L, Tungsten, Custom

Voice Recording
- Voice Recording (max.1 hour)
- Voice Memo in Still Image (max. 10 sec.)

Date Imprinting
- Date, Date&Time, Off (user selectable)

Shooting

- Still Image:
  - · Modes : Auto, Program, Scene
    - ※ Scene : Night, Portrait, Children (in Mode Dial), Landscape, Close-up, Sunset, Dawn, Backlight, Fireworks, Beach & Snow
    - ※ Mode Dial : Auto, Program, Manual, Scene, Portrait, Night, Children
  - · Shooting : Single, Continuous, AEB
  - · Self-timer : 10 sec., 2 sec., Double (10 sec., 2 sec.)
- Movie Clip :
  - · With Audio (recording time : memory capacity dependent)
  - · Size : 640x480, 320x240, 160X128 (3X Optical Zoom, Mute during Zoom Operation)
  - · Frame rate : 30 fps, 15 fps
  - · Movie Stabilizer
  - · Movie Editing (Embedded) : Pause during recording, Still Image Capture, Time Trimming

Storage

- Media :
  - · Internal memory : Approx.45MB flash memory
  - · External memory : MMC/ SD card (Up to 2GB Guaranteed)
- File Format :
  - · Still Image : JPEG (DCF), EXIF 2.2, DPOF 1.1, PictBridge 1.0
  - · Movie Clip : AVI (MPEG-4)
  - · Audio : WAV
- Image Size

10M	9M	8M	7M	6M	5M
3648x2736	3472x2604	3264x2448	3072x2304	2816x2112	2592x1944

4M	3M	2M	1M	VGA	-
2272x1704	2048x1536	1600x1200	1024x768	640x480	-

- Capacity (256MB MMC(Multi Media Card))

	10M	9M	8M	7M	6M	5M
Super Fine	48	53	60	67	80	93
Fine	94	104	115	128	157	181
Normal	109	151	169	197	223	264

	4M	3M	2M	1M	VGA	-
Super Fine	121	148	244	520	1041	-
Fine	226	284	434	868	1116	-
Normal	279	400	520	1041	1302	-

※ These figures are measured under Samsung' s standard conditions and may vary depending on shooting conditions and camera settings.

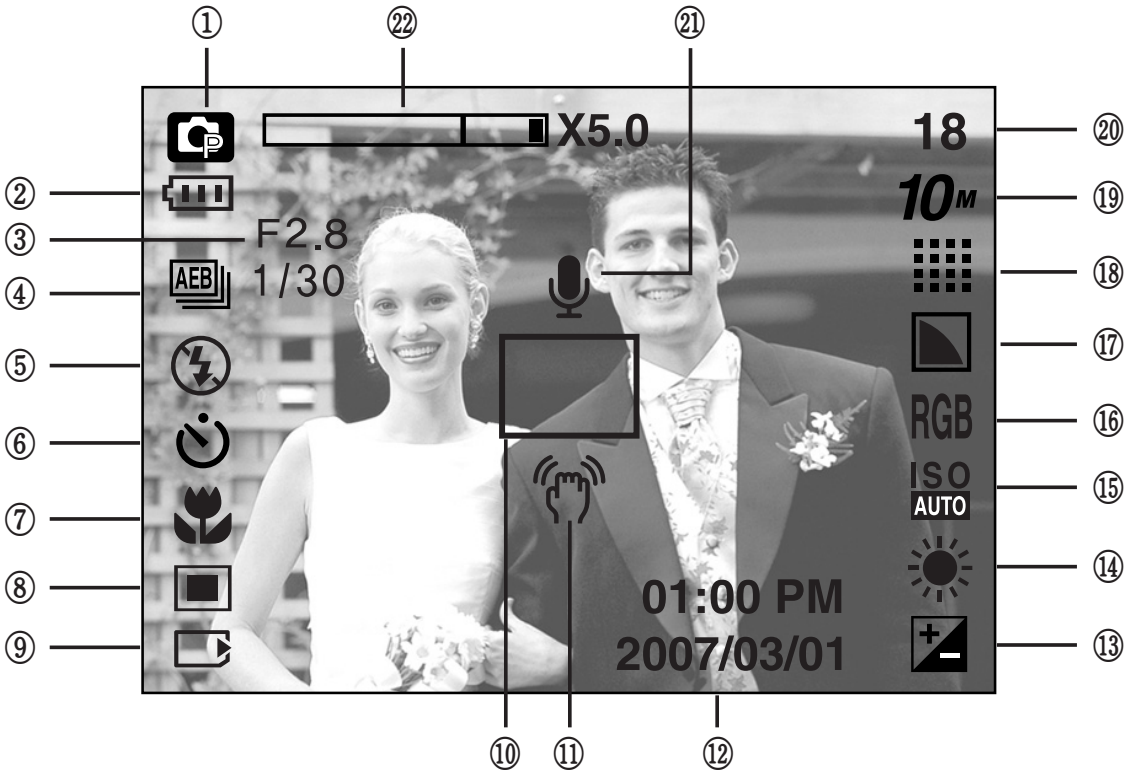
Image Play	- Type : Single image, Thumbnails, Slide show, Movie Clip - Editing : Trimming, Resizing, Rotate, Effect
Interface	- Digital output connector : USB 2.0 High speed - Audio : Mono - Video output : NTSC, PAL (user selectable)
Power Source	- Primary Battery : 2 x AA Alkaline (High Capacity) - Rechargeable battery (Optional) : SNB-2512B KIT (2xAA 2500mAh Ni-MH Battery & Charger) ※ Included battery may vary depending on sales region.
Dimensions (WxHxD)	- 99.6 X 61.8 X 26.95mm (excluding protrusions)
Weight	- Approx. 169g (without batteries and card)
Operating Temperature	- 0 ~ 40˚C
Operating Humidity	- 5 ~ 85%
Software	- Digimax Master

2. System Requirements

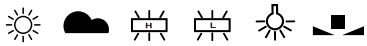
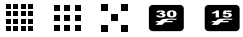
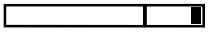
For Windows	For Macintosh
PC with processor better than Pentium II 450MHz (Pentium 700MHz recommended)	Power Mac G3 or later
Windows 98SE/2000/ME/XP/Vista	Mac OS 9.2 ~ 10.4
Minimum 64MB RAM 200MB of available hard disk space	Minimum 64MB RAM 110MB of available hard-disk space
USB port	USB port
CD-ROM drive	CD-ROM drive
1024x768 pixels, 16bit color display compatible monitor 24bit color display recommended)	For playing back a movie clip Mac OS 10.1 ~ 10.3 MPlayer, VLC Media Player

3. LCD monitor indicator

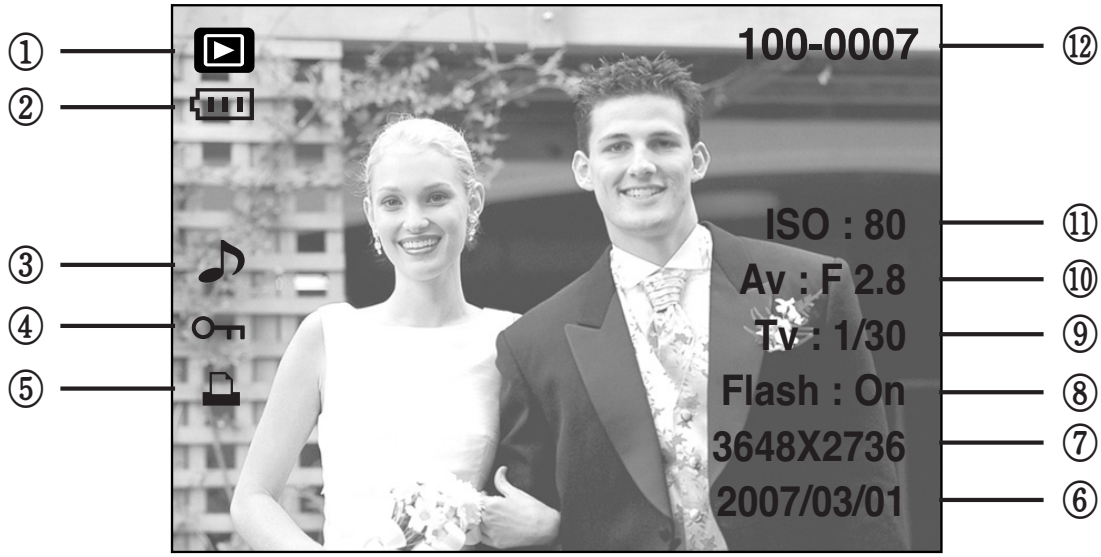
■ Recording mode



[Image & Full Status]

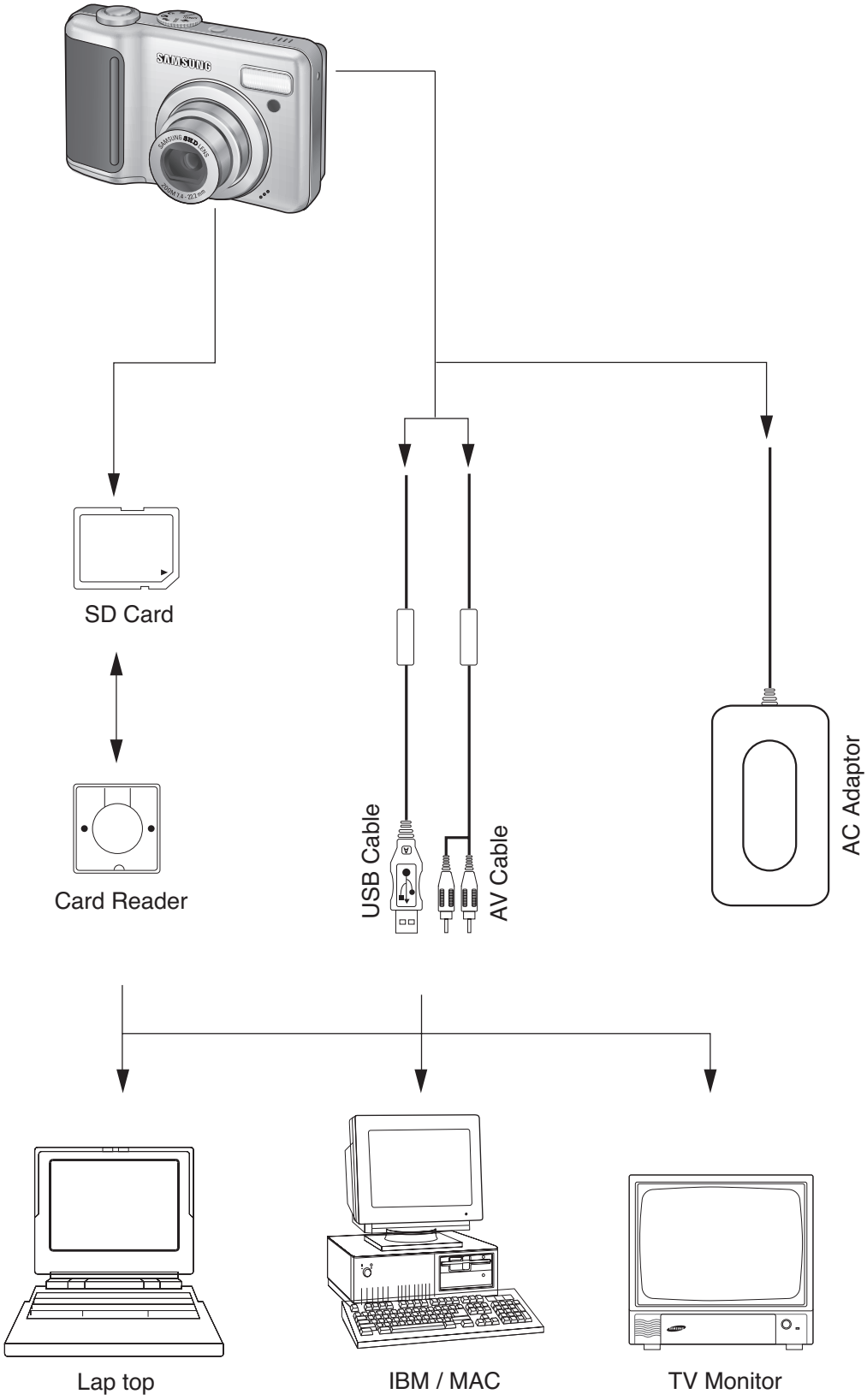
No.	Description	Icons
1	Recording mode	
2	Battery	
3	Aperture Value / Shutter Speed	**F2.8, 1/30**
4	Continuous shot	
5	Flash / Without Sound	
6	Self-timer	
7	Macro	
8	Metering	
9	Card inserted indicator	
10	Auto focus frame	
11	Camera shake warning	
12	Date / Time	**2007/03/01 01:00 PM**
13	Exposure compensation	
14	White Balance	
15	ISO	
16	RGB	**RGB**
17	Sharpness	
18	Image quality / Frame rate	
19	Image size	
20	Number of available shots remaining	**18**
21	Remaining time (Movie clip/ Voice recording)	**00:01:30/ 01:00:00**
	Voice memo	
22	Optical/ Digital Zoom bar/ Digital Zoom rate	 **X5.0**

■ Play mode



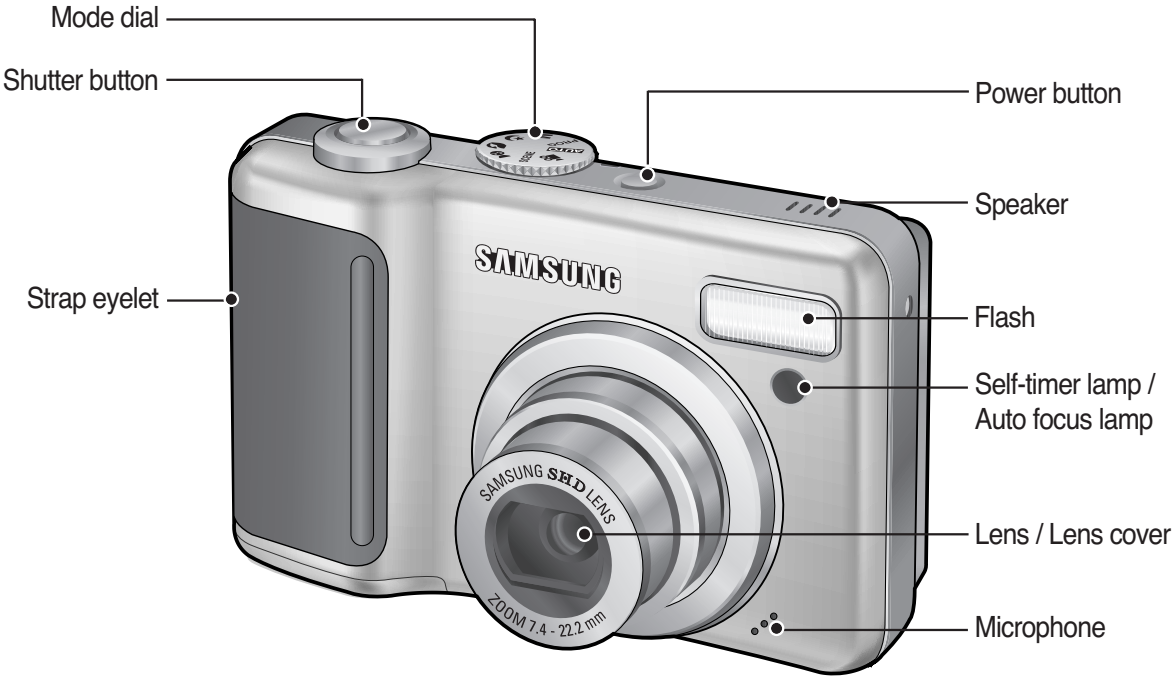
No.	Description	Icon
1	Play mode icon	
2	Battery	
3	Voice Memo	
4	Protect	
5	DPOF	
6	Recording date	**2007/03/01**
7	Image size	**3648x2736 ~ 256x192**
8	Flash	**On/Off**
9	Shutter speed	**8 ~ 1/1,500**
10	Aperture Value	**F2.8 ~ F13.1**
11	ISO	**80~1000**
12	Folder name & File name	**100-0007**

4. CONNECTION DIAGRAM

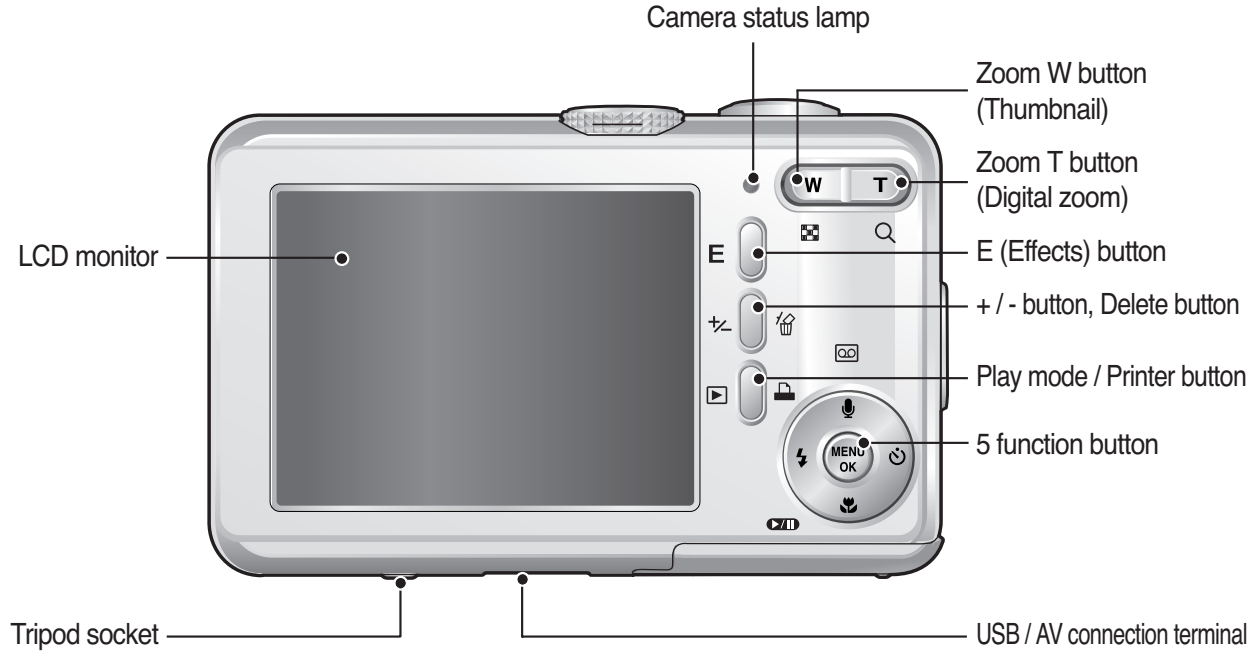


5. IDENTIFICATION OF FEATURES

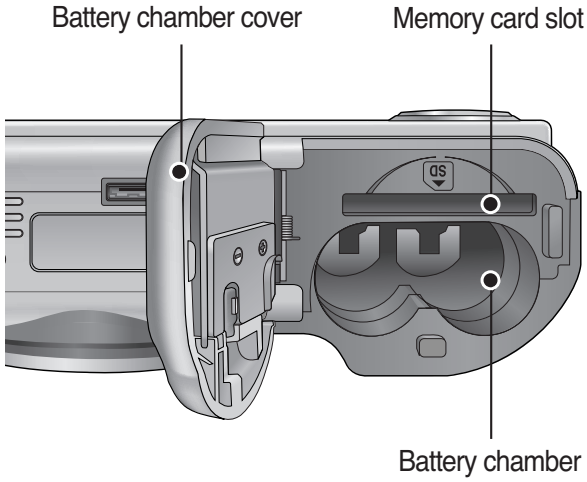
Front & Top

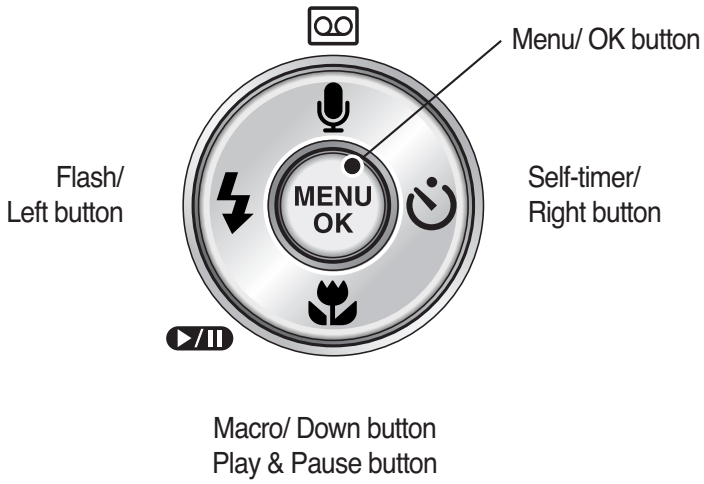


Back & Bottom



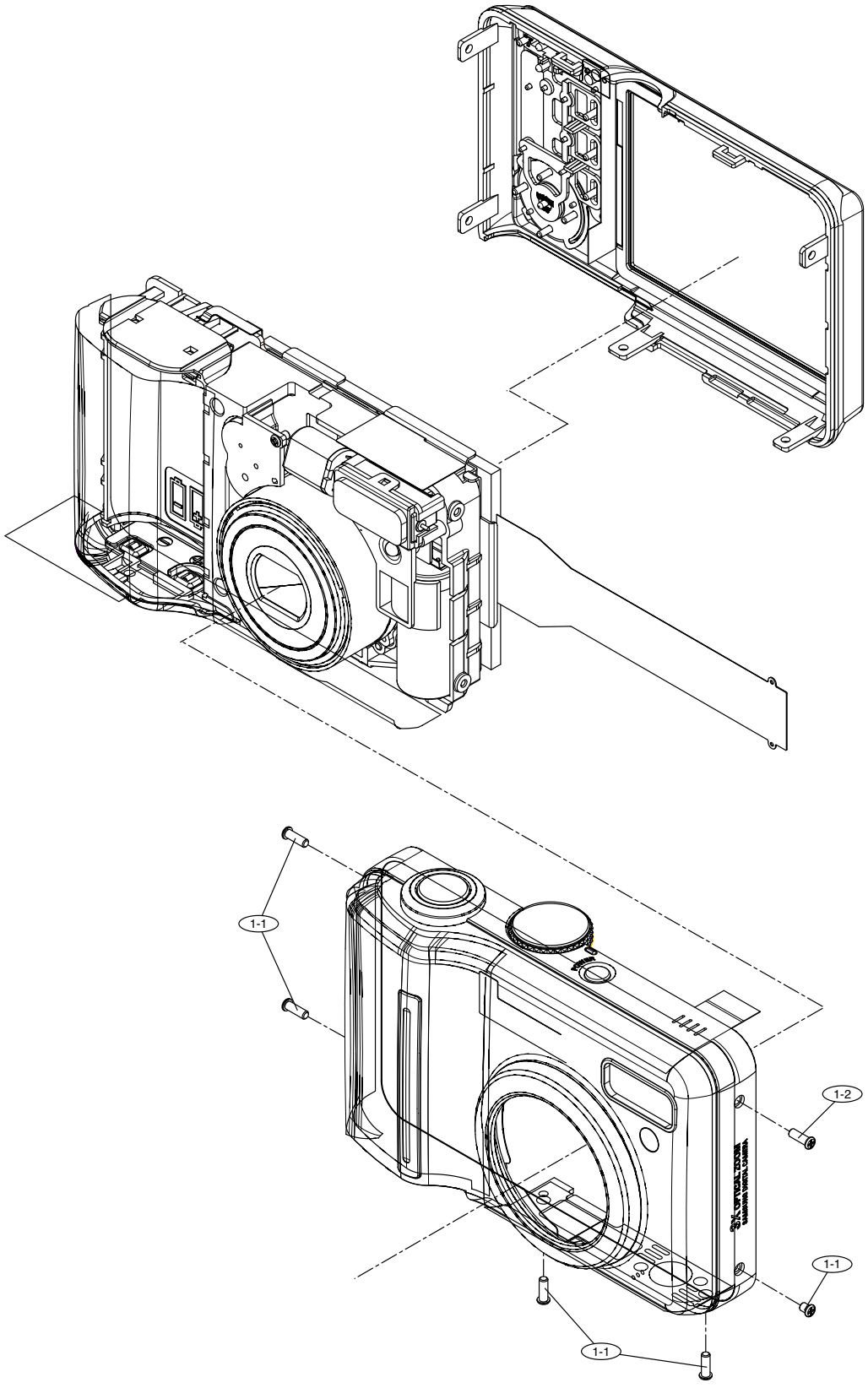
Bottom/ 5-function button





Ⅱ. EXPLODED VIEW AND PART LIST

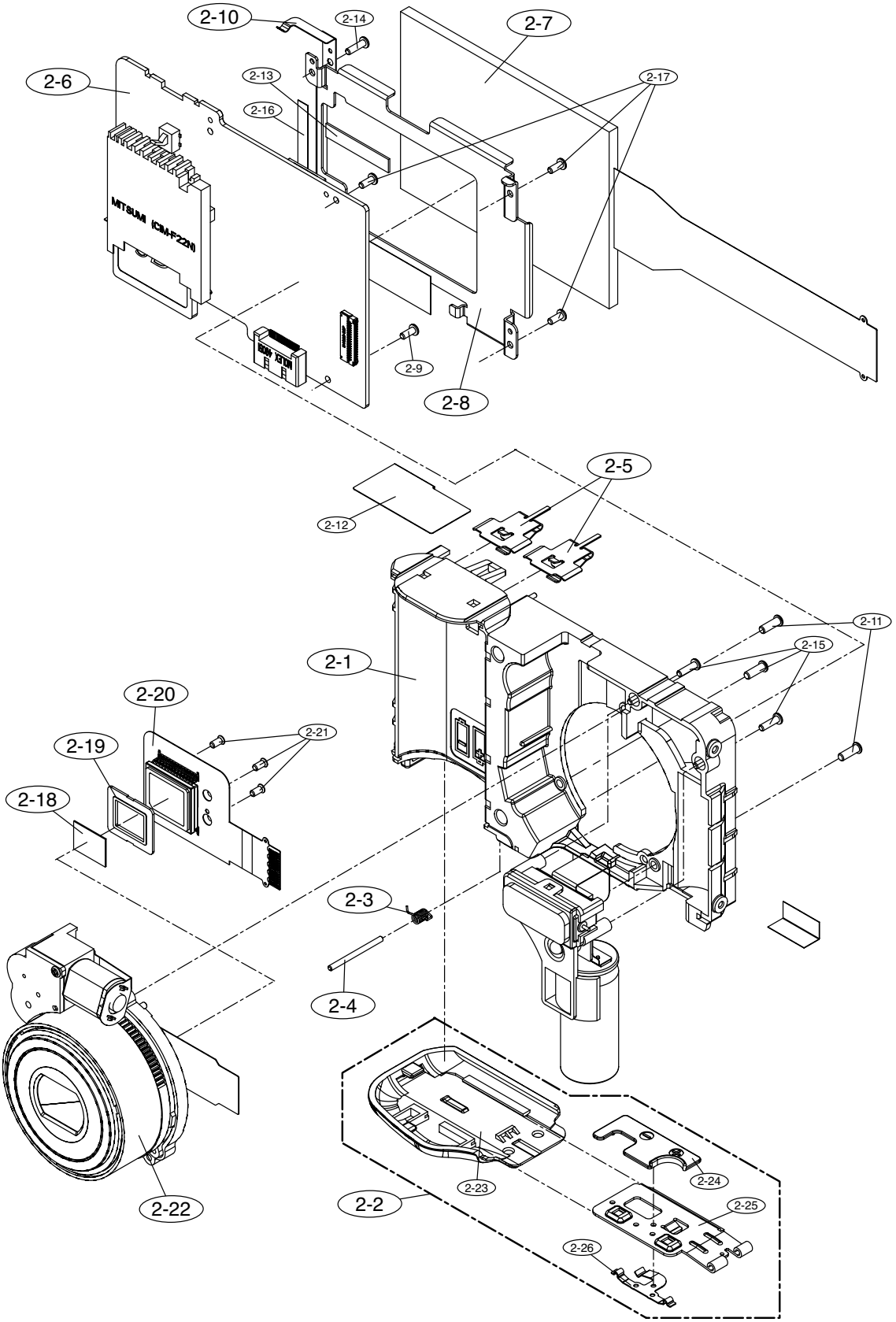
1. MAIN ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
1-1	SCREW	Q6003042701A	5	X	
1-2	SCREW	Q6003048801A	1	X	

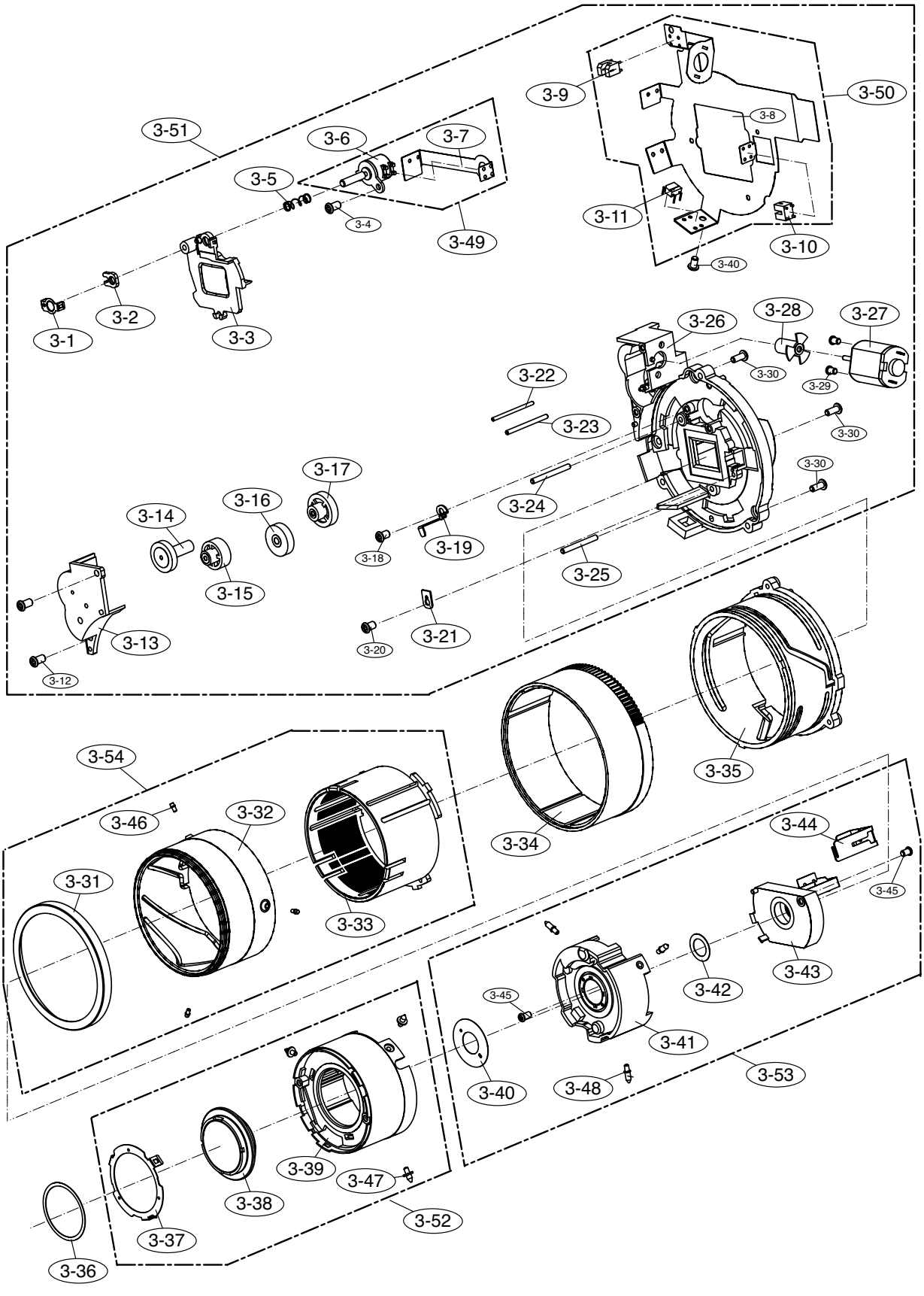
2. BODY ASSEMBLY



PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
2-1	Q7211083807B	BATTERY CHAMBER	1	O	
2-2	Q9001125101A	BATTERY COVER ASSY	1	O	SILVER
	Q9001125101B	BATTERY COVER ASSY	1	O	BLACK
2-3	Q6107067901A	BATTERY HINGE SPRING	1	O	
2-4	Q7011056301A	BATTERY HINGE	1	O	
2-5	Q7011055603A	BATTERY CONTACT	2	O	
2-6	Q9008120001A	MAIN PCB ASSY-S3-103	1	O	
2-7	Q0704014301A	TFT-LCD	1	O	
2-10	Q7017052102A	TOP ESD PLATE	1	O	
2-11	Q9761175007	TAP TITE SCREW	3	X	
2-12	Q7409224601A	TOP FPCB TAPE	1	X	
2-13	Q7409256801A	CONN. SHEET	1	X	
2-14	Q7409254401A	CRADLE GND. TAPE	1	X	
2-15	Q6003018501A	TAP TITE SCREW	2	X	
2-16	Q7409254901A	LIGHT TAPE	1	X	
2-17	Q0961900301A	SCREW	4	X	
2-18	Q2904003702A	IR CUT FILTER	1	O	
2-19	Q7304000102A	IR CUT CUSHION	1	O	
2-20	Q9505000201A	CCD_FPCB_ASSY	1	O	
2-21	Q9765143012	SCREW	3	X	
2-22	Q9002145501A	BARREL ASSY	1	O	
2-23	Q7217404601A	BATTERY_COVER	1	X	
2-24	Q7217368403A	BATTERY EP PLATE	1	X	
2-25	Q7011056202A	BATTERY PLATE	1	X	
2-26	Q7411131601A	BATTERY CONTACT	1	X	

3. BARREL ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
3-1	Q7012080802A	AF CLIP HOLDER	1	O	
3-2	Q7012088601A	AF CLIP	1	O	
3-3	Q9002144601A	3RD LENS ASSY	1	O	
3-4	Q6003000201A	SCREW	1	X	
3-5	Q6107058303A	3RD BARREL SPRING	1	O	
3-6	Q3104000901A	AF MOTOR	1	O	
3-7	Q4101034801A	AF FPCB	1	O	
3-8	Q4101034701A	MAIN FPCB	1	X	
3-9	Q0608001201A	PHOTO INTERRUPTER	1	O	
3-10	Q0608001001A	PHOTO INTERRUPTER	1	O	
3-11	Q0608000701A	PHOTO REFLECTOR	1	O	
3-12	Q0961900301A	SCREW	2	X	
3-13	Q7212189502A	ZOOM COVER	1	O	
3-14	Q7212189801A	ZOOM GEAR_B	1	O	
3-15	Q7212189701A	ZOOMGEAR_A	1	O	
3-16	Q7212190001A	ZOOM GEAR_D	1	O	
3-17	Q7212189901A	ZOOM GEAR_C	1	O	
3-18	Q6001014001A	SCREW	2	X	
3-19	Q7012088301A	AF GUIDE HOLDER	1	O	
3-20	Q0961900101A	SCREW	1	X	

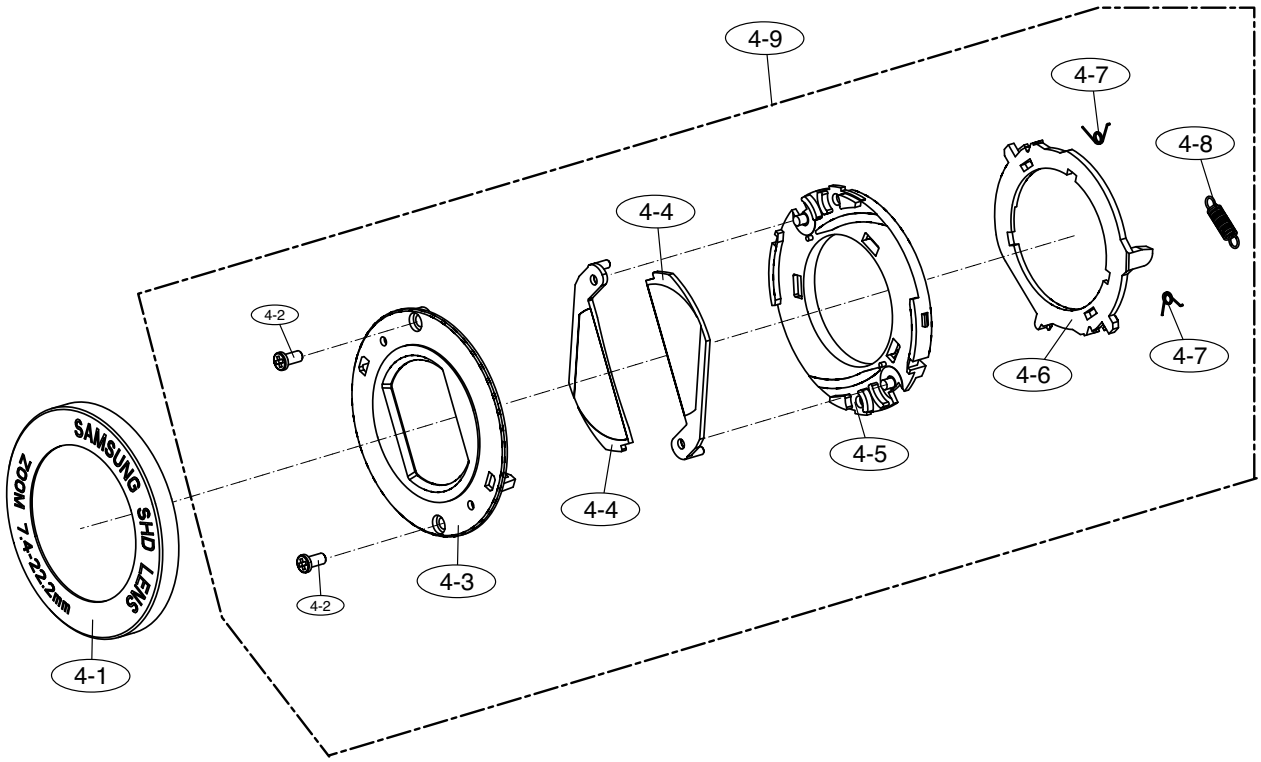
▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
3-21	Q7012088401A	SENSOR HOLDER	1	O	
3-22	Q7411122601A	ZOOM GEAR SHAFT_B	1	O	
3-23	Q7411122401A	ZOOM GEAR SHAFT_A	1	O	
3-24	Q7411121401A	AF GUIDE BAR_A	1	O	
3-25	Q7411121501A	AF GUIDE BAR_B	1	O	
3-26	Q7212190902A	LENS BASE	1	O	
3-27	Q3107002401A	ZOOM MOTOR	1	O	
3-28	Q7212189601A	ZOOM MOTOR GEAR	1	O	
3-29	Q9611142007	SCREW	2	X	
3-30	Q0961900301A	SCREW	3	X	
3-31	Q7012086601A	CAM DECORATION RING	1	O	
3-32	Q7212190602A	CAM BARREL	1	O	
3-33	Q7212190401A	GUIDE PLATE	1	O	
3-34	Q9002145101A	OUTER GUIDE BARREL	1	O	
3-35	Q7212190701A	OUTER CAM BARREL	1	O	
3-36	Q7409220002A	1ST SHEET	1	O	
3-37	Q7012086802A	1ST PUSH PLATE	1	O	

▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
3-38	Q9002144401A1	1ST LENS ASSY	1	O	
3-39	Q7212190501A	ZOOM RING	1	O	
3-40	Q0994913101A	SCREW	1	O	
3-41	Q9002144501A1	2ND LENS ASSY	1	O	
3-42	Q0961900101A	SCREW	1	O	
3-43	Q9005163103A	SHUTTER ASSY	1	O	
3-44	Q7012087103A	FPCB GUIDER	1	O	
3-45	Q6001014001A	SCREW	2	X	
3-46	Q7411120101A	OCB PIN	3	O	
3-47	Q7411122201A	1ST MOVE PIN	3	O	
3-48	Q7411122302A	2ND MOVE PIN	3	O	
3-49	Q9008092201A	AF MOTOR FPCB ASSY	1	O	
3-50	Q9008092101A	MAIN FPCB ASSY	1	O	
3-51	Q9002145401A	LENS BASE ASSY	1	O	
3-52	Q9002144901A	ZOOM RING ASSY	1	O	
3-53	Q9002144701A	2ND LENS BARREL ASSY	1	O	
3-54	Q9002145301A	OUTER CAM BARREL ASSY	1	O	

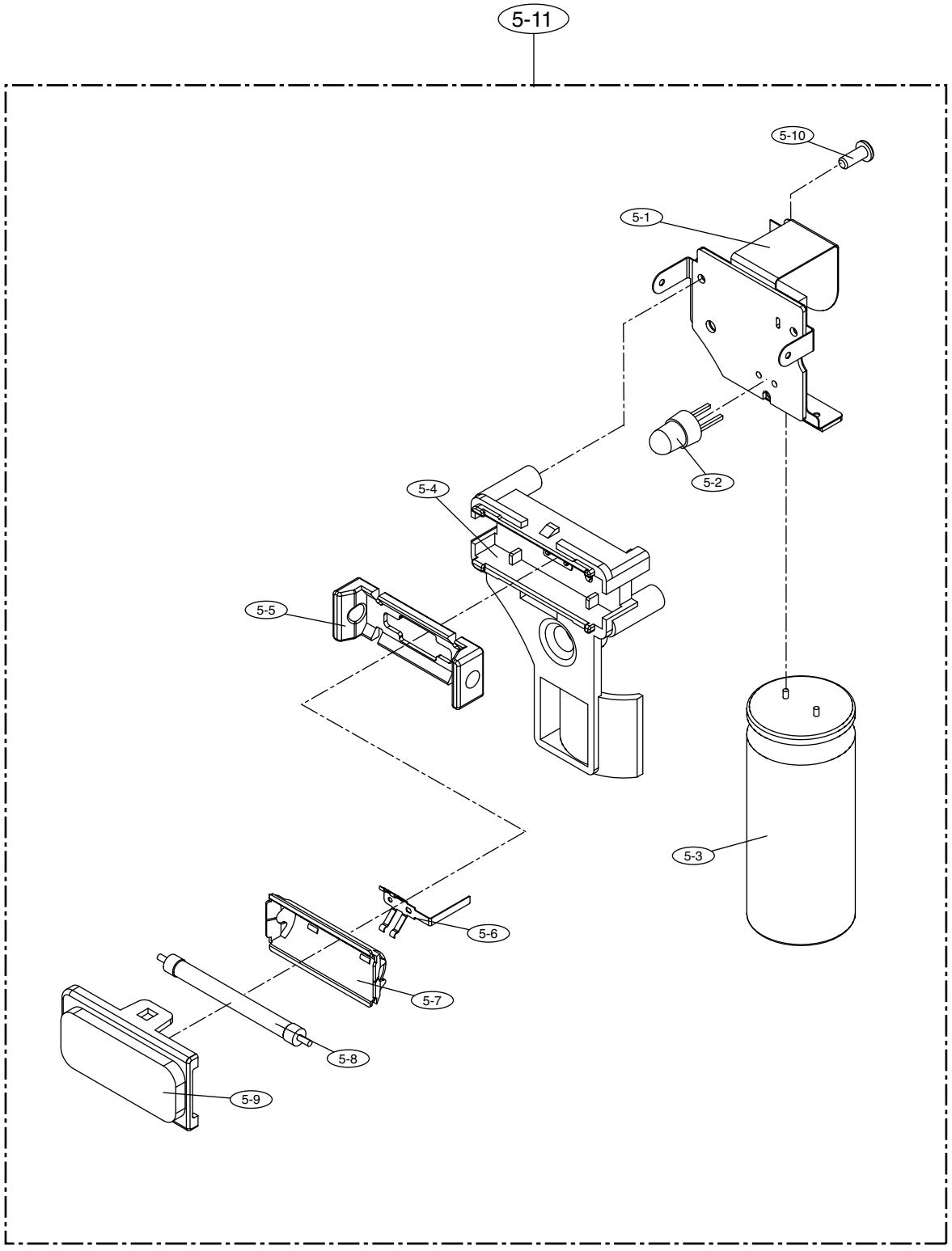
4. BARRIER ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
4-1	Q7012086503A	FRONT DECORING	1	O	
4-2	Q6003048101A	BARRIER SCREW	2	X	
4-3	Q7212189103A	FRONT PANE	1	O	
4-4	Q7212189302A	BARRIER FRAME	2	O	
4-5	Q7212189205A	BARRIER BASE	1	O	
4-6	Q7212189404A	BARRIER LEVER	1	O	
4-7	Q6107065501A	CLOSE SPRING	2	O	
4-8	Q6107065401A	OPEN SPRING	1	O	
4-9	Q9002145201A	BARRIER ASSY	1	O	

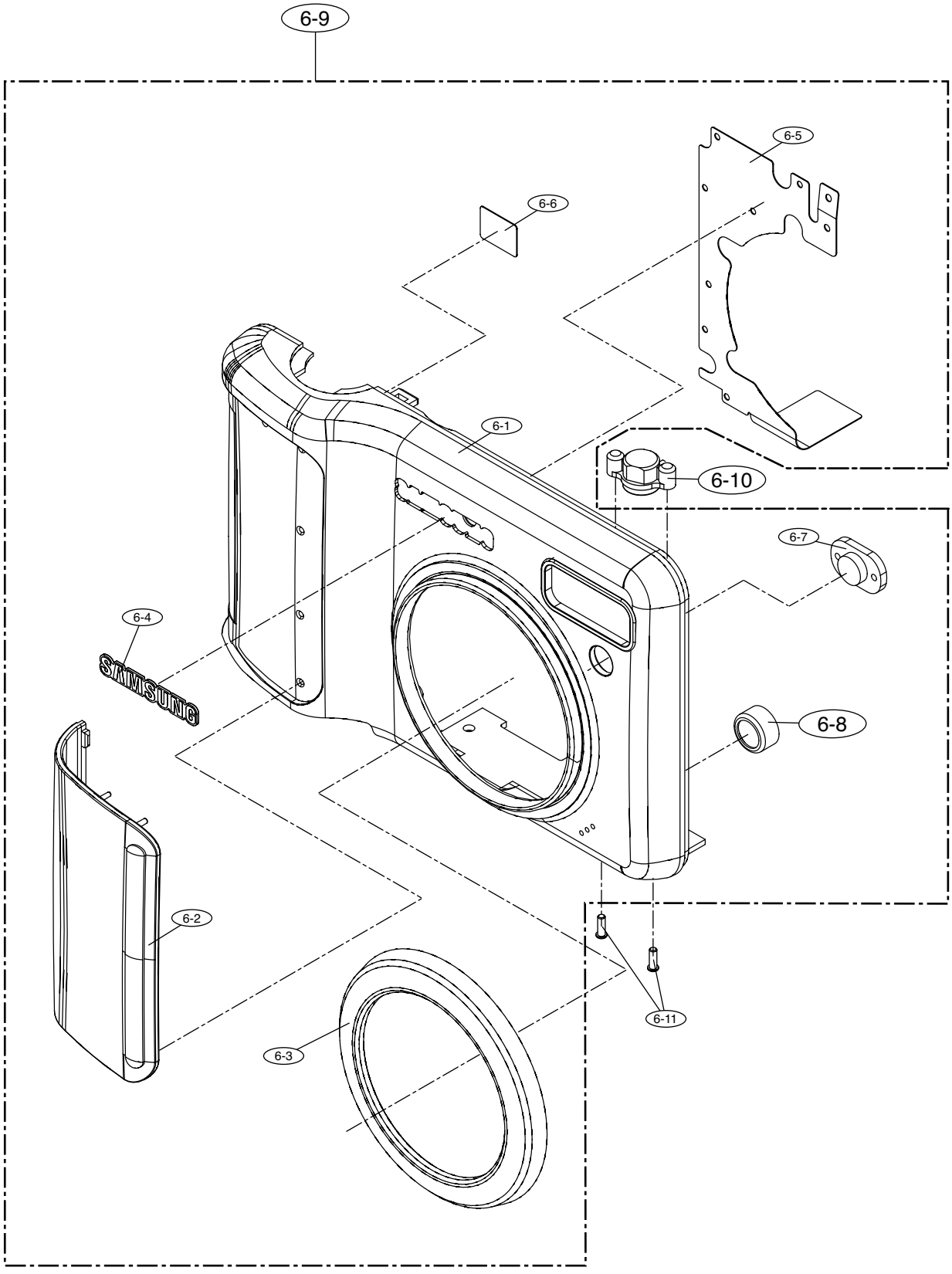
5. STROBO ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
5-1	Q9004088601A	STROBO PCB ASS'Y	1	X	
5-2	Q0408001101A	AF LED	1	X	
5-3	Q2401007601A	MAIN CONDENSOR	1	X	
5-4	Q7211083903A	REFLECTOR HOLDER	1	X	
5-5	Q7309048301A	XE TUBE RUBBER	1	X	
5-6	Q7011057801A	TRIG CONTACT	1	X	
5-7	Q7014004801A	REFLECTOR	1	X	
5-8	Q0611003301A	XE TUBE	1	X	
5-9	Q7214088801A	FRESNEL LENS	1	X	
5-10	Q0961900301A	SCREW	1	X	
5-11	Q9004088701A	STROBO ASSY	1	O	

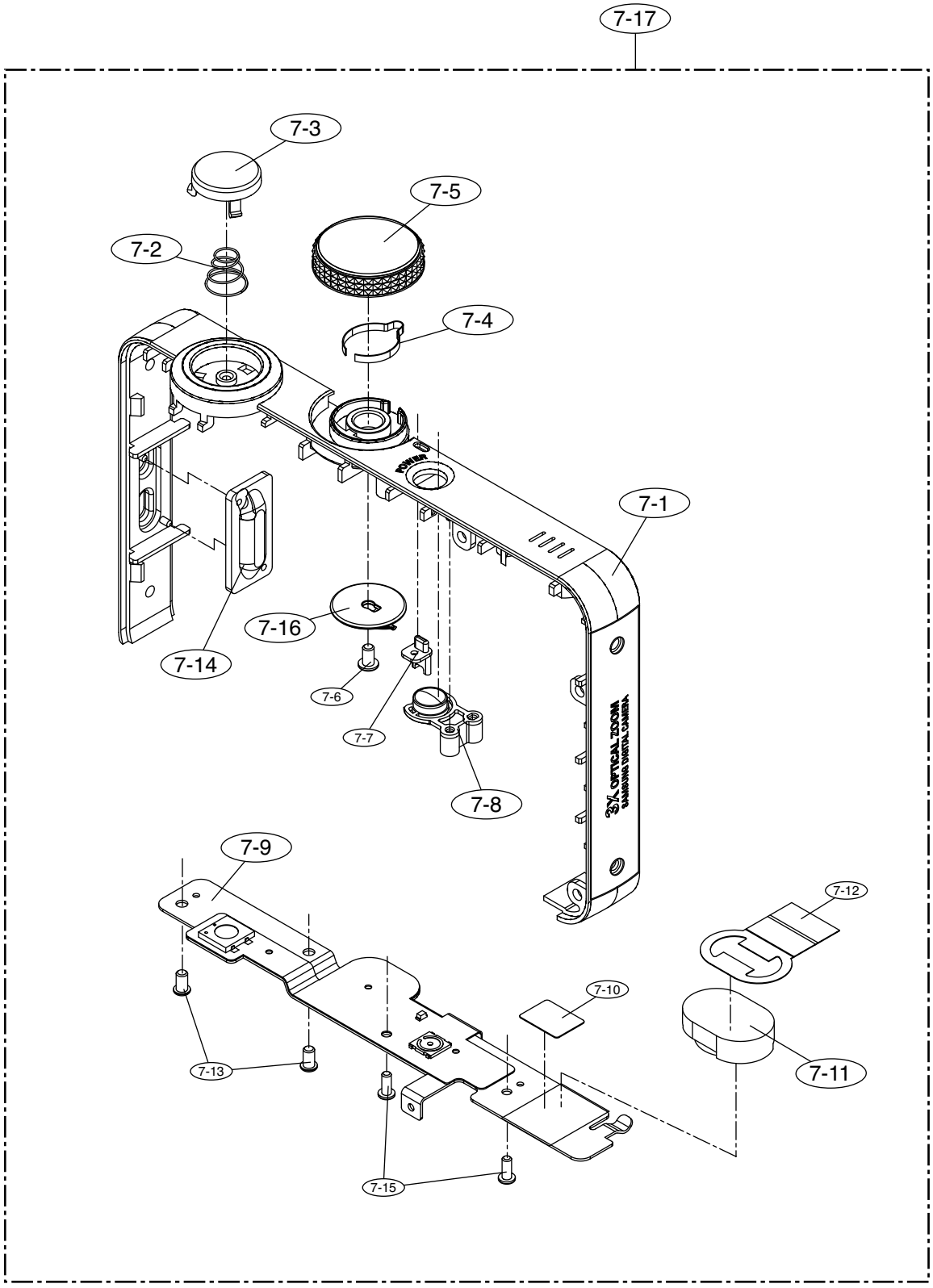
6. FRONT COVER ASSEMBLY



PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
6-1	Q7217404401A	FRONT COVER-S3-103	1	X	
6-2	Q7217404801A	FRONT HAND GRIP	1	X	
6-3	Q7104002701A	FRONT_DECO	1	X	
6-4	Q7017052401A	LOGO PLATE	1	X	
6-5	Q7017052202A	FRONT PLATE	1	X	
6-6	Q7409181102A	EP MASKING TAPE	1	X	
6-7	Q7217372502A	AF LED WINDOW	1	X	
6-8	Q3003001201A	MIC	1	O	
6-9	Q9007283301A	FRONT COVER ASSY	1	O	SILVER
	Q9007283301B	FRONT COVER ASSY	1	O	BLACK
6-10	Q7211059102A	TRIPOD CONNECTOR	1	O	
6-11	Q6003042701A	SCREW	2	X	

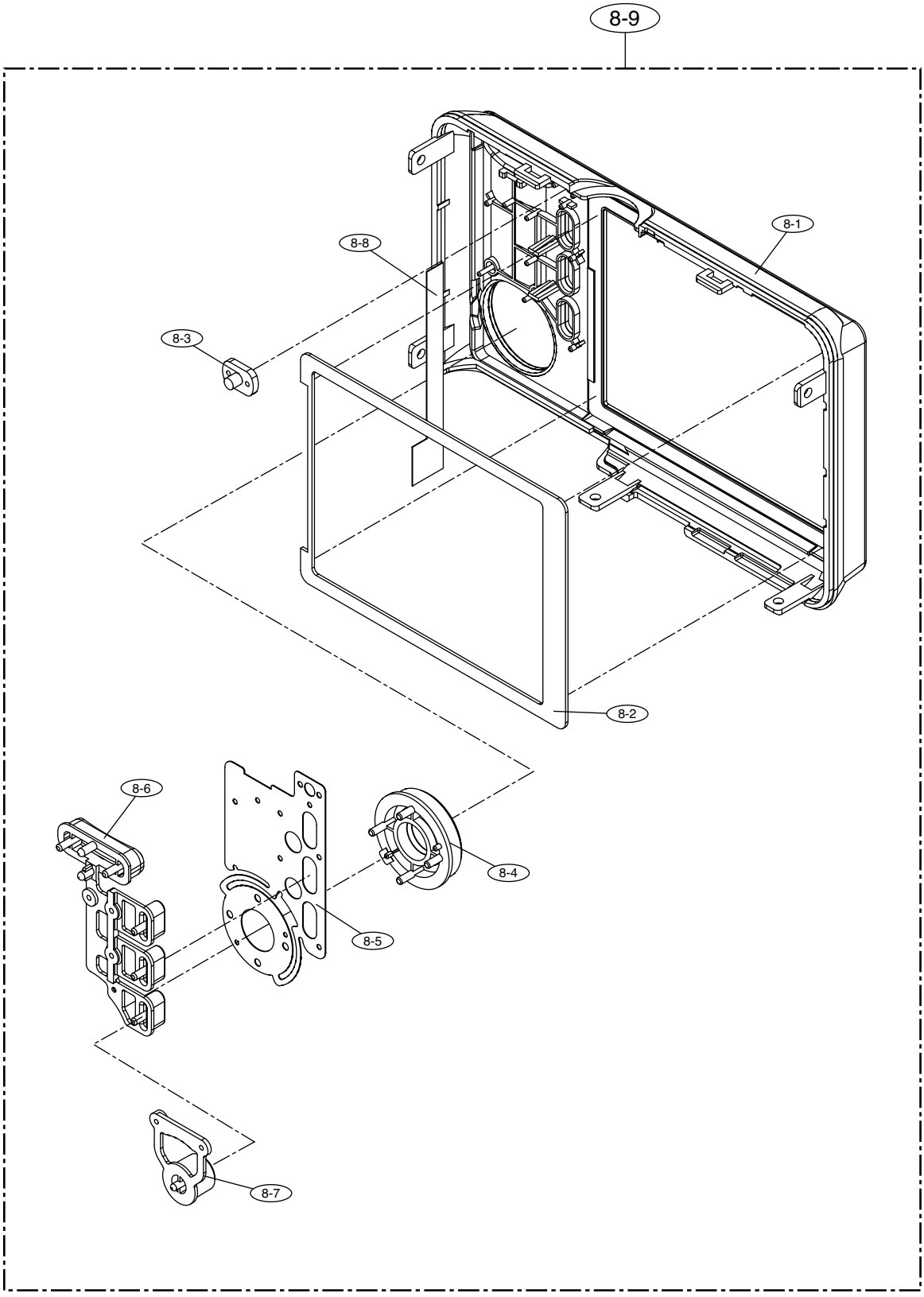
7. MIDDLE COVER ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
7-1	Q7217372807G	MIDDLE COVER KENOX S1030	1	O	SILVER
	Q7217372807H	MIDDLE COVER Samsung S1030	1	O	SILVER
7-2	Q6107059701A	RELEASE SPRING	1	O	
7-3	Q7217373802A	RELEASE BUTTON	1	O	
7-4	Q7017056401A	MODE CLICK PLATE	1	O	
7-5	Q7217368802D	MODE DIAL	1	O	
7-6	Q9761173007A	SCREW	1	X	
7-7	Q7217373602B	DECO LED	1	O	
7-8	Q7217369001B	POWER BUTTON	1	O	
7-9	Q9007250401A	TOP FPCB PLATE ASS'Y	1	O	
7-10	Q7409281102A	EP MASKING TAPE	1	X	
7-11	Q3001000601A	SPEAKER	1	O	
7-12	Q7409225102A	SPEAKER TAPE	1	X	
7-13	Q0961900301A	SCREW	2	X	
7-14	Q7217373903A	STRAP INNER HOLDER	1	O	
7-15	Q9761173012	SCREW	2	X	
7-16	Q9007272001A	MODE CONTACT ASSY	1	O	
7-17	Q9007283401B	MIDDLE COVER ASSY_KENOX S1030	1	O	SILVER
	Q9007283401A	MIDDLE COVER ASSY_Samsung S1030	1	O	SILVER

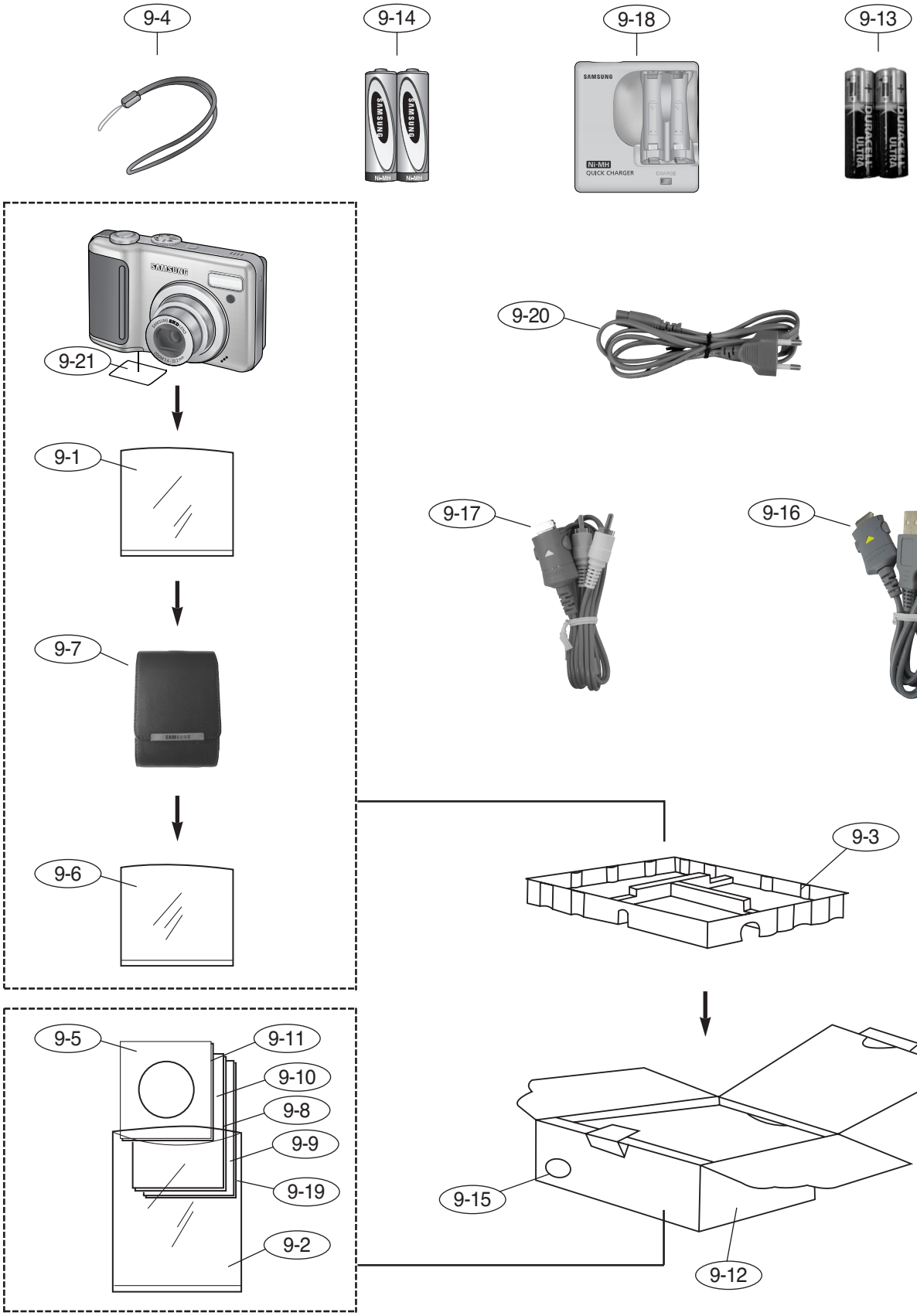
8. BACK COVER ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
8-1	Q7117404501A	BACK COVER	1	X	
8-2	Q7409280301A	LCD SPONGE	1	X	
8-3	Q7217373701A	AF LED LAMP	1	X	
8-4	Q7217373402A	NAVI BUTTON	1	X	
8-5	Q7017052004A	REAR PLATE	1	X	
8-6	Q7217373305B	FUNCTION	1	X	
8-7	Q7217373502A	OK BUTTON	1	X	
8-8	Q7409255001A	BACK COVER SHEET	1	X	
8-9	Q9007283101A	BACK COVER ASSY	1	O	SILVER
	Q9007283101B	BACK COVER ASSY	1	O	BLACK

9. PACKING ITEM



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
9-1	QP960210101A	PE BAG (FOR CAMERA)	1	O	
9-2	Q6909018202A	PE BAG (FOR ACCESSORY)	1	O	
9-3	Q6901258701A	MOLD_PULP_Digimax	1	O	
9-4	Q7409271401A	STRAP_KENOX_S730_KOR/EXP	1	O	
9-5	Q4609018601A	DRIVER_DIGIMAX_MASTER	1	O	
9-6	Q6909019801A	AIR BAG_Samsung	1	O	
9-7	Q6904031201A	POUCH_S3-73_KOR_EXP_BLACK	1	O	
	Q6904031301A	POUCH_S3-73_KOR_EXP_SILVER	1	O	
9-8	Q6806398801A	Q_GUIDE_KENOX_S830	1	O	
	Q6806399101A	Q_GUIDE_Samsung_S830_ENG	1	O	
	Q6806399201A	Q_GUIDE_Samsung_S830_GER	1	O	
	Q6806399301A	Q_GUIDE_Samsung_S830_FRA	1	O	
	Q6806399401A	Q_GUIDE_Samsung_S830_SPA	1	O	
	Q6806399501A	Q_GUIDE_Samsung_S830_ITA	1	O	
	Q6806399601A	Q_GUIDE_Samsung_S830_CHI_T	1	O	
	Q6806399701A	Q_GUIDE_Samsung_S830_DUT	1	O	
	Q6806399801A	Q_GUIDE_Samsung_S830_POR	1	O	
	Q6806399901A	Q_GUIDE_Samsung_S830_SWE	1	O	
	Q6806400001A	Q_GUIDE_Samsung_S830_DEN	1	O	
	Q6806400101A	Q_GUIDE_Samsung_S830_FIN	1	O	
	Q6806400201A	Q_GUIDE_Samsung_S830_RUS	1	O	
	Q6806400301A	Q_GUIDE_Samsung_S830_CHI_S	1	O	
	Q6806400401A	Q_GUIDE_Samsung_S830_TK	1	O	
	Q6806400501A	Q_GUIDE_Samsung_S830_IND	1	O	
	Q6806400601A	Q_GUIDE_Samsung_S830_ARA	1	O	
	Q6806400701A	Q_GUIDE_Samsung_S830_THA	1	O	

▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
9-9	Q6806398901A	U_MANUAL_KENOX S830	1	O	
	Q6806400801A	U_MANUAL_Samsung_S830_ENG	1	O	
	Q6806400901A	U_MANUAL_Samsung_S830_GER	1	O	
	Q6806401001A	U_MANUAL_Samsung_S830_FRA	1	O	
	Q6806401101A	U_MANUAL_Samsung_S830_SPA	1	O	
	Q6806401201A	U_MANUAL_Samsung_S830_ITA	1	O	
	Q6806401301A	U_MANUAL_Samsung_S830_CHI_T	1	O	
	Q6806401401A	U_MANUAL_Samsung_S830_DUT	1	O	
	Q6806401501A	U_MANUAL_Samsung_S830_POR	1	O	
	Q6806401601A	U_MANUAL_Samsung_S830_SWE	1	O	
	Q6806401701A	U_MANUAL_Samsung_S830_DEN	1	O	
	Q6806401801A	U_MANUAL_Samsung_S830_FIN	1	O	
	Q6806401901A	U_MANUAL_Samsung_S830_RUS	1	O	
	Q6806402001A	U_MANUAL_Samsung_S830_CHI_S	1	O	
	Q6806402101A	U_MANUAL_Samsung_S830_TK	1	O	
	Q6806402201A	U_MANUAL_Samsung_S830_IND	1	O	
	Q6806402301A	U_MANUAL_Samsung_S830_ARA	1	O	
	Q6806402401A	U_MANUAL_Samsung_S830_THA	1	O	
9-10	Q6806399001A	QS_MANUAL_KENOX S830	1	O	
	Q6806402501A	QS_MAN_S830_E_G_F_SP_I_DU_P_7	1	O	
	Q6806402601A	QS_MAN_S830_E_G_FI_SW_DA_RU_6	1	O	
	Q6806402701A	QS_MAN_S830_E_TU_CH_IN_AR_TH_6	1	O	
	Q6806402801A	QS_MAN_S830_EN_SP_FR_3	1	O	

PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Supply Available Parts	Remarks
9-11	QP955150101F	WARRANTY CARD_KOREA	1	O	
	Q6807012301A	WARRANTY CARD_2 YERARS	1	O	
	Q6807010903C	WARRANTY CARD_RUS(3 YEARS)	1	O	
	Q6807011301B	WARRANTY CARD_TSOE(CHINA)	1	O	
	Q6807009502E	CARD_PRODUCT(Mexico)	1	O	
	Q6807012101A	WARRANTY CARD_IRAN	1	O	
	Q6807012401A	WARRANTY CARD_TURKEY	1	O	
9-12	Q6901268701A	GT_BOX_KENOX_S830_SBC-N2_Silver	1	O	
	Q6901268801A	GT_BOX_S830_EXP_AUS_ALKALINE_SL	1	O	
	Q6901268901A	GT_BOX_S830_USA_CAN_ALKALINE_SL	1	O	
9-13	Q4301001801A	ALKALINE (1.5V, AA) 2EA - DURACEL ULTRA	1	O	
9-14	Q4302000901A	BATTERY_SNB-2512(AA Type)	1	O	
9-15	Q6804096001A	COLOR STICKER_Digimax S500_BLACK	1	O	
9-16	3802005001A	18PIN-USB CABLE	1	O	
9-17	3802005101A	18PIN-AV CABLE	1	O	
9-18	Q4309002301A	Ni-MH CHARGER(SBC-N2)	1	O	
9-19	Q6806368001A	MANUAL_SNB-2512B KIT_KOR	1	O	
9-20	Q3801003001A	AC CODE CABLE_KOR-D1	1	O	
9-21	Q7409284901A	MIC LABEL_KENOX S830(MADE IN CHINA)	1	O	
	Q7409285001A	FCC LABEL_Samsung_S830_EXP (MADE IN CHINA)	1	O	
	Q7409272601A	FCC LABEL_Samsung_S830_EXP (MADE BY SAMSUNG)	1	O	

Ⅲ. ADJUSTMENT

1. FIRMWARE

1) Reseting Camera

1. Turn on the Camera

2. Press and hold the Up button and Shutter button and then press the Power off

3. Turn on the camera and check whether the camera is reset or not.

2) Checking version

1. Remove the memory card from the camera.

2. Turn on the camera

3. Press the Up button twice to select the Voice Recording mode.

4. Press the 5 function button as following order. (Left button → Right button → Up button → +/- button)

5. Check the Firmware and turn off the camera.

3) UPGRADING

1. Insert the SD card that has the firmware.

* Updating the firmware will delete all data in the SD card. Be sure to download all data to your PC before updating the firmware.
The firmware file name must be " STS3_103.elf " and use the AC adapter or fully charged battery.

2. Use the AC adapter or fully charged battery.

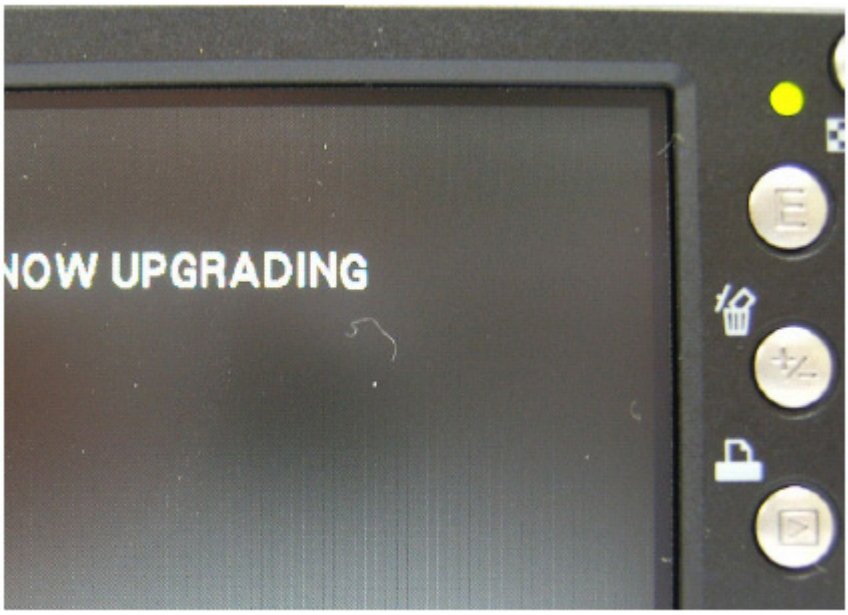
To upgrade the Firmware, all of the battery level indicator on the LCD monitor must be displayed.

3. Turn on the camera

4. Press the Up button twice to select the Voice Recording mode.

5. Press the 5 function button as following order. (Left button → Right button → Up button → +/- button)

6. 'NOW UPGRADING!' message will display and then the firmware will be upgraded.



7. After upgrading the firmware, the camera is turned off.

8. Turn on the camera and do the 'Reset' menu in the Setup menu.

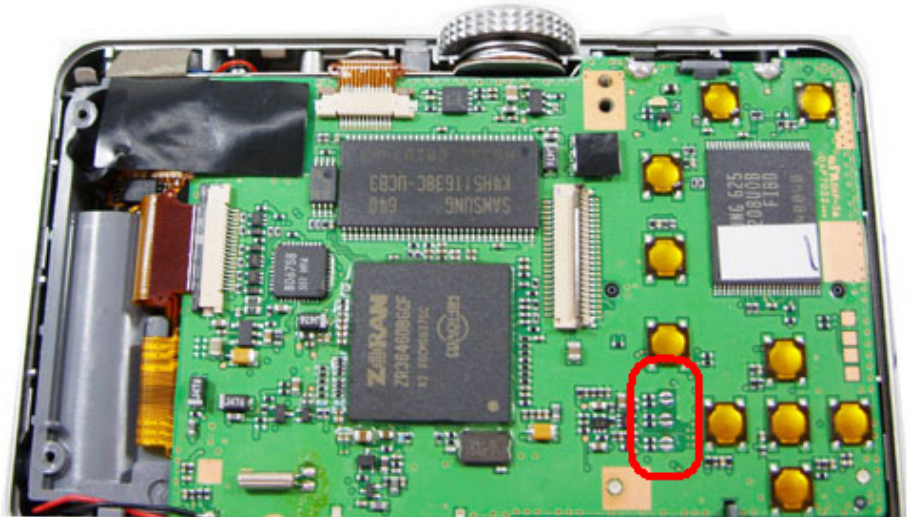
4) Full Version of Firmware

How to use the FULL version of Firmware1

When the camera is not turned on, do the Full version upgrade.

▷**Camera Status** : When turning on the camera, the power consumption (Checking the POWER SUPPLY) is 200-300mA and the camera cant be operated.
▷**Cause** : The data of 0 address in the FLASH MEMORY of the MAIN PCB is damaged.
▷**Solution** : Recover the address by doing the FULL VERSION FIRMWARE shown below.
▷**Additions** : After completing the upgrading of the FULL VERSION FIRMWARE, do the LENS SHADINGand ÄCCD DEFECT CELL adjustment.

1.Short the 3 point of the MAIN PCB as shown.



2. Assemble the camera correctly and insert the SD card that has the Full version of firmware.

* The firmware file name must be " STS3_103_full.elf "

3. Turn on the camera by using the Power Supply.
   To connect the camera and Power Supply, use the Battery Tool.

4. If the Current is up to 200mA and down to 0 on the POWER SUPPLY display, the upgrade is complete.

How to use the FULL firmware 2

Depending on the camera status, do the full version upgrade.

▷**Reference** :
- Delete all data in the memory card and upgrade with this firmware.
- When using the full version upgrade, back up the script file as the files will be deleted by the upgrade.
- If the full version upgrade is done by the following way, the script files are saved on the SD card.
  To upload the script files, do not remove the SD card and refer to instructions listed below.
- If there are LSCLUT0.BIN, DefectivePixel0.bin, DefectivePixel1.bin files on the SD card, the back up was complete.

1. Insert the SD card that has the Full version of firmware.

* Updating the firmware will delete all data in the SD card. Be sure to download all data to your PC before updating the firmware.
  The firmware file name must be " STS3_103.elf " and use the AC adapter or fully charged battery.

2. Use the AC adaptor or fully charged battery.

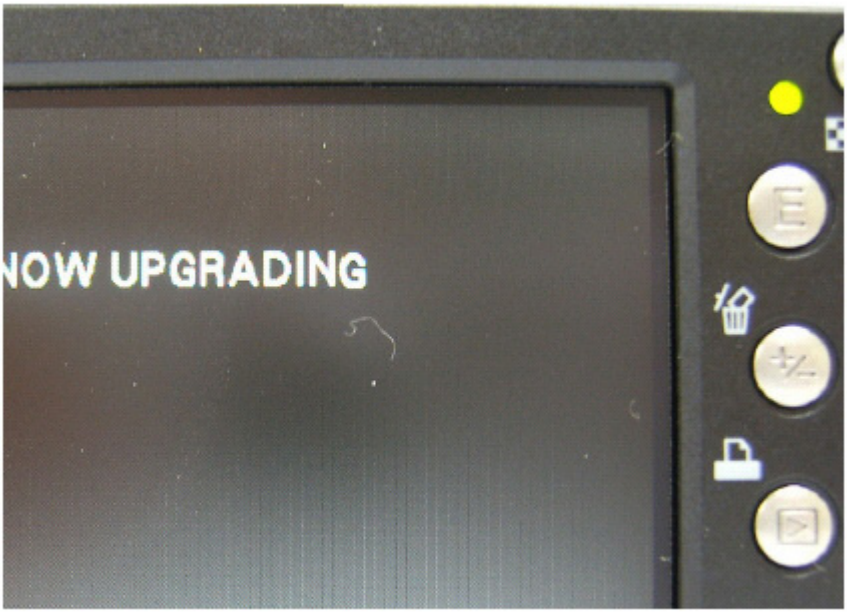
To upgrade the Firmware, all of the battery level indicator on the LCD monitor must be displayed.

3. Turn on the Camera.

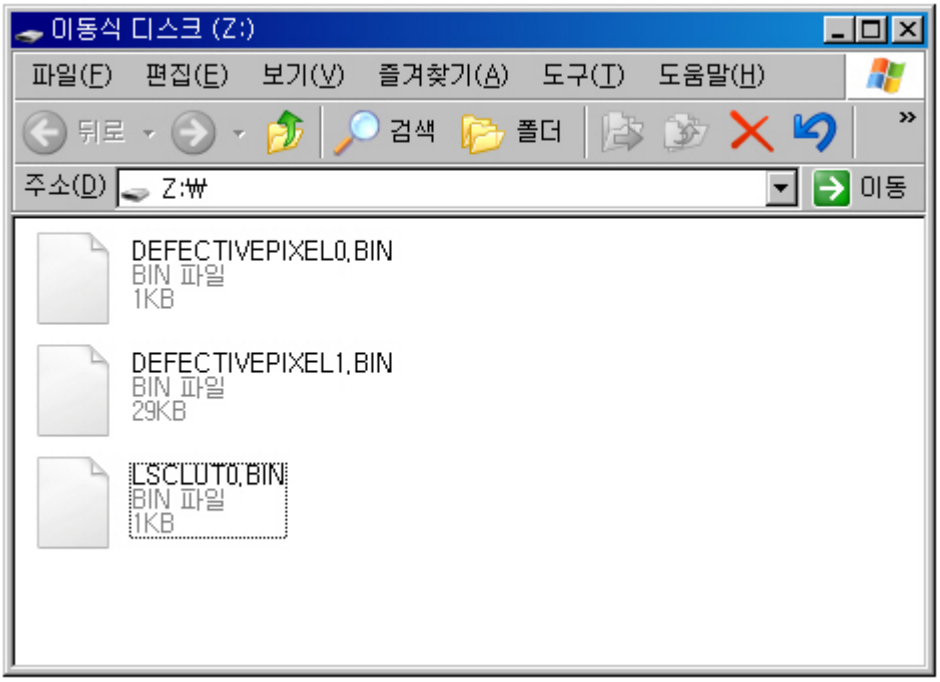
4. Press the Up button twice to select the Voice Recording mode.

5. Press the 5 function button as following order. (Left button → Right button → Down button → +/- button)

6. 'NOW UPGRADING!' message will display and then the firmware will be upgraded.



- After completing the upgrading, back up files will be made on the SD memory card.
  Backup file names are LSCLUT0.BIN, DefectivePixel0.bin and DefectivePixel1.bin .



7. After upgrading the Full version firmware, upload the script files.
   Turn on the camera and press the Up button twice to select the Voice Recording mode.
   Press the 5 function button as following order :Tele button → Wide button → Down button → OK button.

8. The following message will display and the upgrading is complete.

2. ADJUSTMENT CAUTION

1) Basic Information of Adjustment

After changing the electronic parts of S1030, the parts have to be adjusted in accordance withe the adjusted items.
The items listed on the table are have to be adjusted after changing.

1> To adjust the camera after changing the electronic parts, see the below table.

	MAIN PCB	POWER PCB	BARREL ASS' Y	CCD ASS' Y
FIRMWARE UPGRADE	●		●	
PUNT ADJ.	●		●	●
SHUTTER CLOSE TIME ADJ.	●		●	●
BACK LASH ADJ.	●		●	●
FLASH ADJ.	●	●		
BATTERY LEVEL ADJ.	●	●		
OB SETTING	●			●
BURNING TEST & CCD DEFECT CELL	●	●	●	●
EEPROM READ				
EEPROM WRITE				

2> Equipment

▶ Equipments
- AE TESTER : AE TESET can test up to LV 16.7.
- POWER SUPPLY : 3.3V / 2A

▶ Chart
- Focus Chart
- Gray Chart(36%..Reflection Paper)

3> Adjustment program file

To adjust all items, all kinds of code by items have to be inserted in program file and saved them to the SD card as TXT file type. The codes are listed below.

< Description of TXT file >

Use the Memo pad of Basic Windows program and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT

;   /* LENS SHADING */
〈11〉1,1;     E2P,SD
〈12〉1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
〈13〉65,120; MIN,MAX
〈14〉65535;
〈15〉0;

;   /* DEFECT PIXEL */
〈16〉1,1;
〈17〉0;
〈18〉1,3000,400,6;
〈19〉20000,0;
〈20〉65535;
〈21〉0;

;   /* BATT LEVEL */
〈22〉1,1;     E2P,SD
〈23〉0;       REPEAT
〈24〉96,104; MIN,MAX
〈25〉92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
〈26〉93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
〈27〉65535;
〈28〉0;
```

```
;    /* BACKLASH */
〈29〉1,1;      E2P,SD
〈30〉1,2;      REPEAT,REPEAT FOR AVG
〈31〉50;
〈32〉65535;
〈33〉0;

;    /* SHUTTER CLOSING */
〈34〉1,1;      E2P,SD
〈35〉1;        REPEAT
〈36〉1,480,450,19,2,15;
〈37〉65535;
〈38〉0;

;    /* FLASH */
〈39〉1,1;      E2P,SD
〈40〉1;        REPEAT
〈41〉960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
〈42〉65535;
〈43〉0;

;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※ SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

2) OB SETTING

After changing the MAIN PCB, adjust the black color.

<How to adjust>

a...Download program and save it to SD memory card.

b...Insert the SD memory card that has the program file and turn on the camera.

c...Adjustment will be done automatically.

<Figure 1-1>

d...After completing the adjustment, the camera is turned off automatically.

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT

;   /* LENS SHADING */
〈11〉1,1;     E2P,SD
〈12〉1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
〈13〉65,120; MIN,MAX
〈14〉65535;
〈15〉0;

;   /* DEFECT PIXEL */
〈16〉1,1;
〈17〉0;
〈18〉1,3000,400,6;
〈19〉20000,0;
〈20〉65535;
〈21〉0;

;   /* BATT LEVEL */
〈22〉1,1;     E2P,SD
〈23〉0;       REPEAT
〈24〉96,104; MIN,MAX
〈25〉92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
〈26〉93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
〈27〉65535;
〈28〉0;

;   /* BACKLASH */
〈29〉1,1;     E2P,SD
〈30〉1,2;     REPEAT,REPEAT FOR AVG
```

```
〈31〉50;
〈32〉65535;
〈33〉0;

;    /* SHUTTER CLOSING */
〈34〉1,1;      E2P,SD
〈35〉1;        REPEAT
〈36〉1,480,450,19,2,15;
〈37〉65535;
〈38〉0;

;    /* FLASH */
〈39〉1,1;      E2P,SD
〈40〉1;        REPEAT
〈41〉960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
〈42〉65535;
〈43〉0;

;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

3) LENS SHADING

This menu adjust the brightness gaps between center of the lens and around the lens.
Required Equipment : AE TESTER(LV: 8.2)

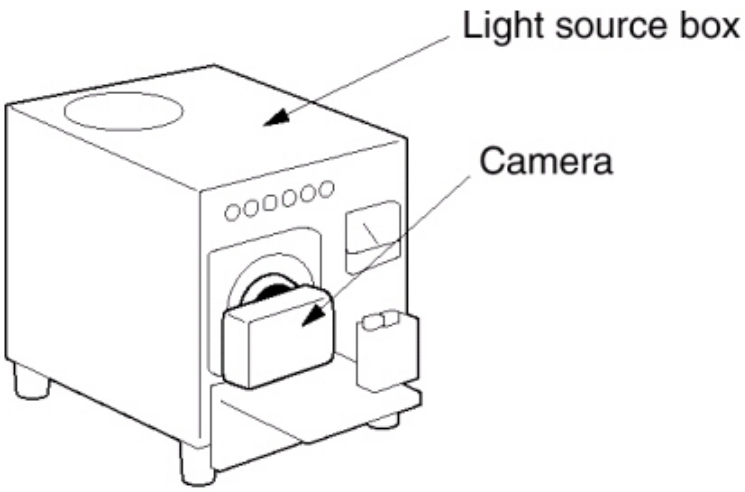
< How to adjust >

a...Prepare AE TESTER can be test up to LV16.1.

b...Download program file and save it to SD memory card.

c...Insert the SD memory card that has the program file and attach the camera to the AE TESTER.

d...Attach the camera on the AE METER and set the LV as 8.2.



e...Turn on the camera.

f...Process will be displayed on the TFT LCD and the adjustment will be done automatically.

<Figure 2-1>

e...After completing the upgrade, the camera is turned off automatically.

※ If the adjustment is incomplete, NG message will display. In this case, re-try the adjustment process.

<Figure 2-2>

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as"STS3_103ADJ.TXT"

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT

;   /* LENS SHADING */
〈11〉1,1;     E2P,SD
〈12〉1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
〈13〉65,120; MIN,MAX
〈14〉65535;
〈15〉0;

;   /* DEFECT PIXEL */
〈16〉1,1;
〈17〉0;
〈18〉1,3000,400,6;
〈19〉20000,0;
〈20〉65535;
〈21〉0;

;   /* BATT LEVEL */
〈22〉1,1;     E2P,SD
〈23〉0;       REPEAT
〈24〉96,104; MIN,MAX
〈25〉92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
〈26〉93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
〈27〉65535;
〈28〉0;

;   /* BACKLASH */
〈29〉1,1;     E2P,SD
〈30〉1,2;     REPEAT,REPEAT FOR AVG
〈31〉50;
〈32〉65535;
〈33〉0;
```

```
;    /* SHUTTER CLOSING */
〈34〉1,1;      E2P,SD
〈35〉1;        REPEAT
〈36〉1,480,450,19,2,15;
〈37〉65535;
〈38〉0;

;    /* FLASH */
〈39〉1,1;      E2P,SD
〈40〉1;        REPEAT
〈41〉960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
〈42〉65535;
〈43〉0;

;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

4) BACK LASH ADJ

After changing the MAIN PCB, BARREL and CCD, adjust the BACK LASH.

< How to adjust >

a...Download the Program file and save it to SD memory card.

b...Insert the SD memory card that has program file and turn on the camera.

c...<Figure 3-1> will be displayed on the TFT LCD and the adjustment will be done automatically.

<Figure 3-1>

d...After completing the upgrade, the camera is turned off automatically.

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT

;   /* LENS SHADING */
〈11〉1,1;     E2P,SD
〈12〉1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
〈13〉65,120; MIN,MAX
〈14〉65535;
〈15〉0;

;   /* DEFECT PIXEL */
〈16〉1,1;
〈17〉0;
〈18〉1,3000,400,6;
〈19〉20000,0;
〈20〉65535;
〈21〉0;

;   /* BATT LEVEL */
〈22〉1,1;     E2P,SD
〈23〉0;       REPEAT
〈24〉96,104; MIN,MAX
〈25〉92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
〈26〉93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
〈27〉65535;
〈28〉0;
```

```
;    /* BACKLASH */
〈29〉1,1;      E2P,SD
〈30〉1,2;      REPEAT,REPEAT FOR AVG
〈31〉50;
〈32〉65535;
〈33〉0;

;    /* SHUTTER CLOSING */
〈34〉1,1;      E2P,SD
〈35〉1;        REPEAT
〈36〉1,480,450,19,2,15;
〈37〉65535;
〈38〉0;

;    /* FLASH */
〈39〉1,1;      E2P,SD
〈40〉1;        REPEAT
〈41〉960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
〈42〉65535;
〈43〉0;

;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※ SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

5) B/T LEVEL ADJ

After changing the MAIN PCB, adjust WARNING LEVEL and LOCK LEVEL.
Required Equipment : POWER SUPPLY(2.71V)

< How to adjust >

a...Prepare the POWER..SUPPLY.

b...Connect the camera to the POWER..SUPPLY.

c...Set the voltage to 2.71V.

d...Downloading the program file and save it to SD memory card.

e...Insert the SD memory card and turn on the camera.

f...The adjustment will be done automatically. There are no displays on the LCD.

g...After completing the upgrade, the camera is turned off automatically.

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT
```

```
;    /* LENS SHADING */
<11>1,1;      E2P,SD
<12>1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
<13>65,120; MIN,MAX
<14>65535;
<15>0;

;    /* DEFECT PIXEL */
<16>1,1;
<17>0;
<18>1,3000,400,6;
<19>20000,0;
<20>65535;
<21>0;

;    /* BATT LEVEL */
<22>1,1;      E2P,SD
<23>0;        REPEAT
<24>96,104; MIN,MAX
<25>92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
<26>93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
<27>65535;
<28>0;

;    /* BACKLASH */
<29>1,1;      E2P,SD
<30>1,2;      REPEAT,REPEAT FOR AVG
<31>50;
<32>65535;
<33>0;

;    /* SHUTTER CLOSING */
<34>1,1;      E2P,SD
<35>1;        REPEAT
<36>1,480,450,19,2,15;
<37>65535;
<38>0;

;    /* FLASH */
<39>1,1;      E2P,SD
<40>1;        REPEAT
<41>960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
<42>65535;
<43>0;
```

```
;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※ SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

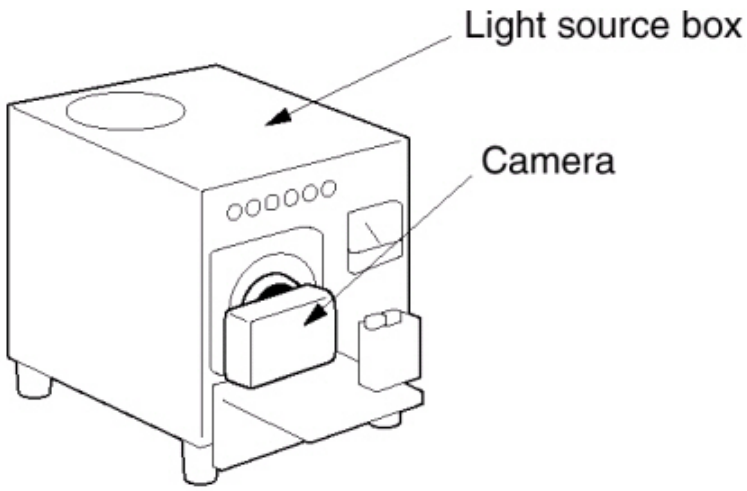
6) SHUTTER CLOSE TIME ADJ

After changing the MAIN PCB, BARREL and CCD, adjust the SHUTTER CLOSE TIME.
Required Equipment: AE TESTER(LV 15.8)

< How to adjust >

a...Prepare AE TESTER that can be test up to LV 16.0 ±0.1.

b...Attach the camera to the AE TESTER.



c...Set the LV to 15.8 ±0.1.

d...Download the program and save it to SD memory card.

e...Insert the SD memory card that has the program file and turn on the camera.

f...The adjustment will be done automatically.

<Figure 5-1>

g...After completing the upgrade, the camera is turned off automatically.

※ If the adjustment is incomplete, <Figure 5-2> will display. In this case, re-try the adjustment process.

<Figure 5-1>

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT

;   /* LENS SHADING */
〈11〉1,1;     E2P,SD
〈12〉1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
〈13〉65,120; MIN,MAX
〈14〉65535;
〈15〉0;

;   /* DEFECT PIXEL */
〈16〉1,1;
〈17〉0;
〈18〉1,3000,400,6;
〈19〉20000,0;
〈20〉65535;
〈21〉0;

;   /* BATT LEVEL */
〈22〉1,1;     E2P,SD
〈23〉0;       REPEAT
〈24〉96,104; MIN,MAX
〈25〉92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
〈26〉93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
〈27〉65535;
〈28〉0;

;   /* BACKLASH */
〈29〉1,1;     E2P,SD
〈30〉1,2;     REPEAT,REPEAT FOR AVG
〈31〉50;
〈32〉65535;
〈33〉0;
```

```
;    /* SHUTTER CLOSING */
〈34〉1,1;      E2P,SD
〈35〉1;        REPEAT
〈36〉1,480,450,19,2,15;
〈37〉65535;
〈38〉0;

;    /* FLASH */
〈39〉1,1;      E2P,SD
〈40〉1;        REPEAT
〈41〉960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
〈42〉65535;
〈43〉0;

;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※ SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

7) FLASH ADJ

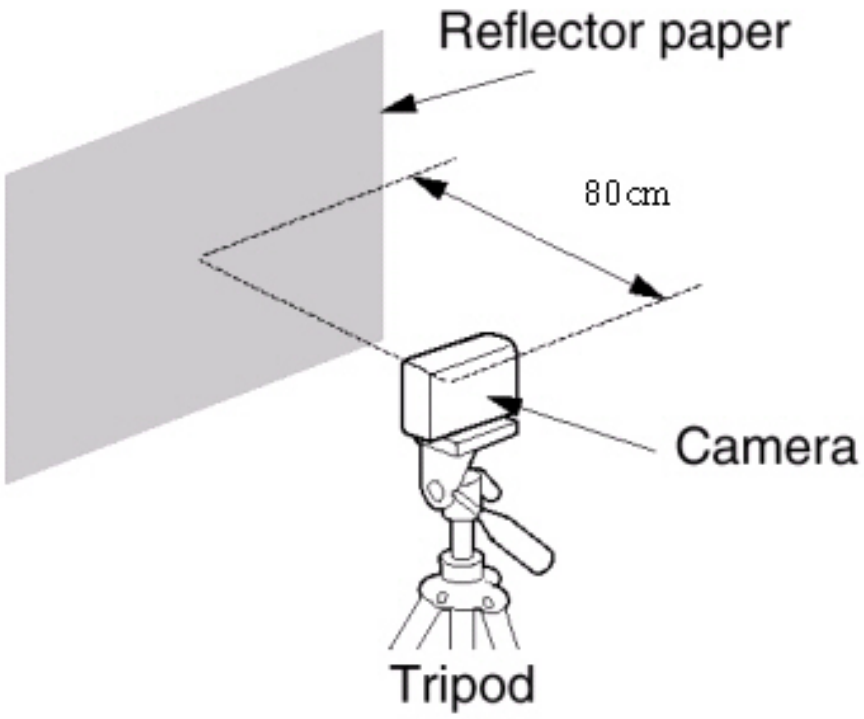
After changing the MAIN PCB and SUB PCB, adjust the FLASH.
Required Equipment : Dark room, Gray chart (36% reflect paper), Tripod

< How to adjust >

a...Arrange a 36% reflect chart in a darkroom..

b... Arrange a camera in a darkroom. (Use TRIPOD)

c...The distance between the reflect chart and the camera should be 80cm.



d...Download the program and save it to SD memory card.

e...Insert the SD memory card that has the program file and turn on the camera.

f...The adjustment will be done automatically.

<Figure 6-1>

g...After completing the upgrade, the camera is turned off automatically.

※ If the adjustment is incomplete, NG message will display. In this case, re-try the adjustment process.

<Figure 6-2>

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT
```

```
;    /* LENS SHADING */
<11>1,1;      E2P,SD
<12>1,3,100,0;   REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
<13>65,120;  MIN,MAX
<14>65535;
<15>0;

;    /* DEFECT PIXEL */
<16>1,1;
<17>0;
<18>1,3000,400,6;
<19>20000,0;
<20>65535;
<21>0;

;    /* BATT LEVEL */
<22>1,1;      E2P,SD
<23>0;         REPEAT
<24>96,104;  MIN,MAX
<25>92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
<26>93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
<27>65535;
<28>0;

;    /* BACKLASH */
<29>1,1;      E2P,SD
<30>1,2;      REPEAT,REPEAT FOR AVG
<31>50;
<32>65535;
<33>0;

;    /* SHUTTER CLOSING */
<34>1,1;      E2P,SD
<35>1;         REPEAT
<36>1,480,450,19,2,15;
<37>65535;
<38>0;

;    /* FLASH */
<39>1,1;      E2P,SD
<40>1;         REPEAT
<41>960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
<42>65535;
<43>0;
```

```
;    /* PUNT */
<44>1,1;      E2P,SD
<45>0;        REPEAT
<46>0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
<47>20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
<48>34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
<49>-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
<50>65535;
<51>0;
;    /* CURRENT */
<52>0,0;      E2P,SD
<53>1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
<54>0,65534;
<55>0;
```

※SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

8) FOCUS ADJ

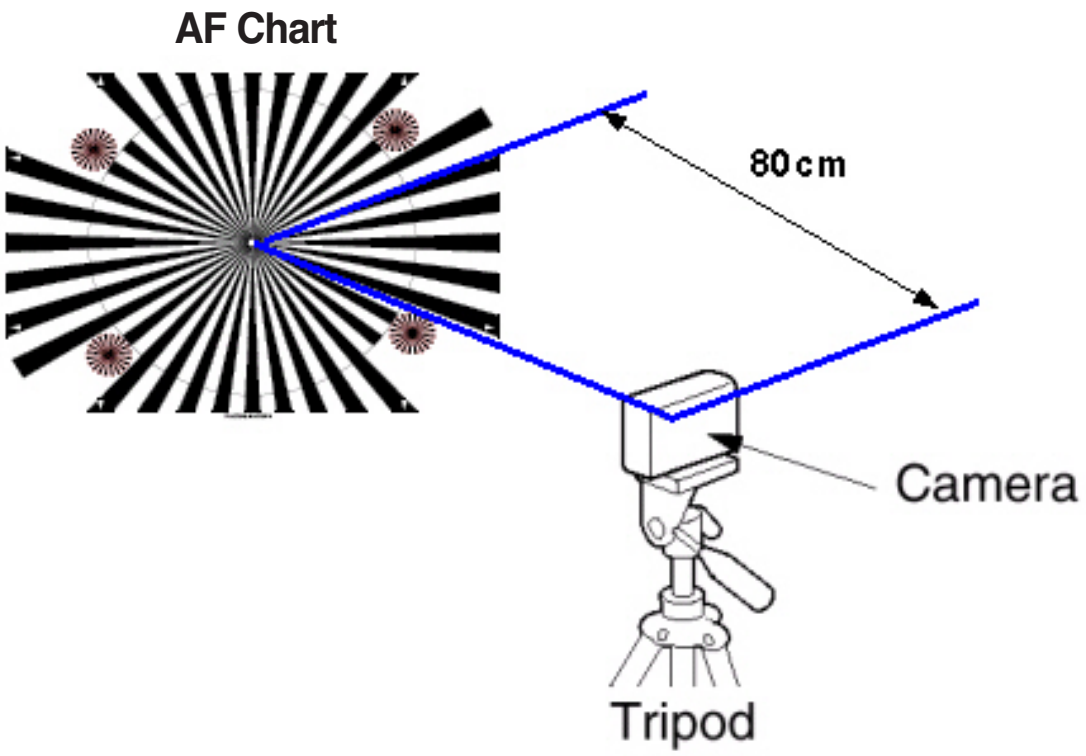
After changing the MAIN PCB and BARREL, adjust the PUNT.
Required Equipment : Chart for FOCUS adjustment,Tripod

< How to adjust >

a... Arrange a chart for adjust the FOCUS.

b... Attach the camera to the tripod.

c...The distance between the chart and the camera should be 80cm.



d...Download the program and save it to SD memory card.

e...Insert the SD memory card that has the program file and turn on the camera.

f...The adjustment will be done automatically.

<Figure 7-1>

g...After completing the upgrade, the camera is turned off automatically.

※ If the adjustment is incomplete, NG message will display. In this case, re-try the adjustment process.

<Figure 7-2>

< Description of TXT file >

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_103ADJ.TXT".

```
〈1〉18;  /* OB */
〈2〉65535;
〈3〉18,1;
〈4〉1,1;      E2P WRITE(1), SD WRITE(1)
〈5〉0;        REPEAT(0=1)
〈6〉8,0,0,0,3000,1500;
〈7〉30,0,0,0,3000,1500,65535,0;
〈8〉23;  /* 8 ADJ */
〈9〉23,2;
〈10〉1,0,1,1,1,1,1,1;LS,DF,BATT,BLASH,SC,STROBO,PUNT,CURRENT
```

```
;    /* LENS SHADING */
<11>1,1;      E2P,SD
<12>1,3,100,0;  REPEAT,NG REPEAT,LUT LOADING PERCENTAGE,BEFORE CAP SKIP(0:SKIP)
<13>65,120; MIN,MAX
<14>65535;
<15>0;

;    /* DEFECT PIXEL */
<16>1,1;
<17>0;
<18>1,3000,400,6;
<19>20000,0;
<20>65535;
<21>0;

;    /* BATT LEVEL */
<22>1,1;      E2P,SD
<23>0;        REPEAT
<24>96,104; MIN,MAX
<25>92,88,85,83,88;HALF1,LOW1,EMPTY1,LOCK1,START1
<26>93,90,87,82,85;HALF2,LOW2,EMPTY2,LOCK2,START2
<27>65535;
<28>0;

;    /* BACKLASH */
<29>1,1;      E2P,SD
<30>1,2;      REPEAT,REPEAT FOR AVG
<31>50;
<32>65535;
<33>0;

;    /* SHUTTER CLOSING */
<34>1,1;      E2P,SD
<35>1;        REPEAT
<36>1,480,450,19,2,15;
<37>65535;
<38>0;

;    /* FLASH */
<39>1,1;      E2P,SD
<40>1;        REPEAT
<41>960,550,750,500,1150,155,360,310,710,,680,543,360,300,9;MAX,MIN,MID,AWB
<42>65535;
<43>0;
```

```
;    /* PUNT */
〈44〉1,1;      E2P,SD
〈45〉0;        REPEAT
〈46〉0,0,1,2,3,4,5,6,7;IRIS(대),ZOOM STEP
〈47〉20,394,21,429,32,418,46,404,61,397,79,395,100,402,122,412;Searching Range
〈48〉34,373,41,408,52,398,66,384,81,376,99,375,120,381,142,391;Limitation
〈49〉-43,10,-39,10,-38,20,-21,11,-14,20,-10,25,-10,38; Change Available limit
〈50〉65535;
〈51〉0;
;    /* CURRENT */
〈52〉0,0;      E2P,SD
〈53〉1,6,18,52,4,3,42,12;REPEAT,COMMAND CNT,COMMAND
〈54〉0,65534;
〈55〉0;
```

※ SD CARD SHOULD BE FORMATTED BEFORE USING.

※ fter inserting each code, [;] mark has to be inserted.

9) BURNING TEST

BURNING TEST : After changing the MAIN PCB and parts, check whether all of the camera functions work correctly.

< How to adjust >

a...Save the STS3_83ADJ.TXT file on the Root directory of the SD card and insert the card.

When making or modifying the program, see the following program codes.
When modify the program, use the Memo Pad of Windows and save it as "STS3_83ADJ.TXT".

PROGRAM	Description of codes
<1>PROCESS CODE ;	<1>10;
<2>65535 ;	<2>65535;
<3>PROCESS CODE ;	<3>10,0;
<4>0 OR 1 ;	<4>1;save to e2prom
<5>0 OR 1 ;	<5>1;don't save to sd card
<6>CONDITION ;	**<6>20,14,1,2,4,3,6,7,8,9,10,11,12,13,14,15;**
<7>SPEC ;	<7>;
<8>NOT	<8>;
<9>NOT	<9>;
<10>NOT	<10>;
<11>NOT	<11>;
<12>NOT	<12>;
<13>NOT	<13>;
<14>0	<14>65535;
<15>0	<15>0;close lens

Type step <6> by using the table shown below.
Ex.> <6>20,14,1,2,4,3,6,7,8,9,10,11,12,13,14,15,,1,,1,1,1,1,3000,400,6,20000,0,65535,0;
1st number means : Repeat time (To repeat this adjustment 20 times, put 20.)
2nd number means : Number of codes (As there are 14 codes - 1,2,4,3,6,7,8,9,10,11,12,13,14,15 -, put 14.)
From the 3rd to last number means : see the table.

b... Insert the SD memory card that has the program file and turn on the camera.

c...The function will be done in order automatically.

※ After completing the functions, "Burning END" message will display and the camera turn off automatically.

10) EEPROM READ

To read the data of EEPROM, refer to the below codes.

< How to read >

a...Insert the codes (from START ADDRESS 0 to END ADDRESS 500) and save the program in the SD card.

b...Insert the SD memory card that has the program file and turn on the camera.

c...Turn on the camera and the DATA in the EEPROM will be copied in the SD card.
The codes from ADDRESS 0 to 7 will display on the LCD monitor and the rest of codes will not display.

d...Turn off the camera after reading and saving the data.

e...If you read the SD card in your PC, you can find the STS3_83_E2PR.CSV file and you can check the EEPROM DATA.

11) EEPROM WRITE

If you want to write the DATA of EEPROM, do as follows.

< How to write >

a...Insert the codes (from 0 to 540) and save the program in the SD card.

b... Insert the SD card to the camera and turn on the camera.

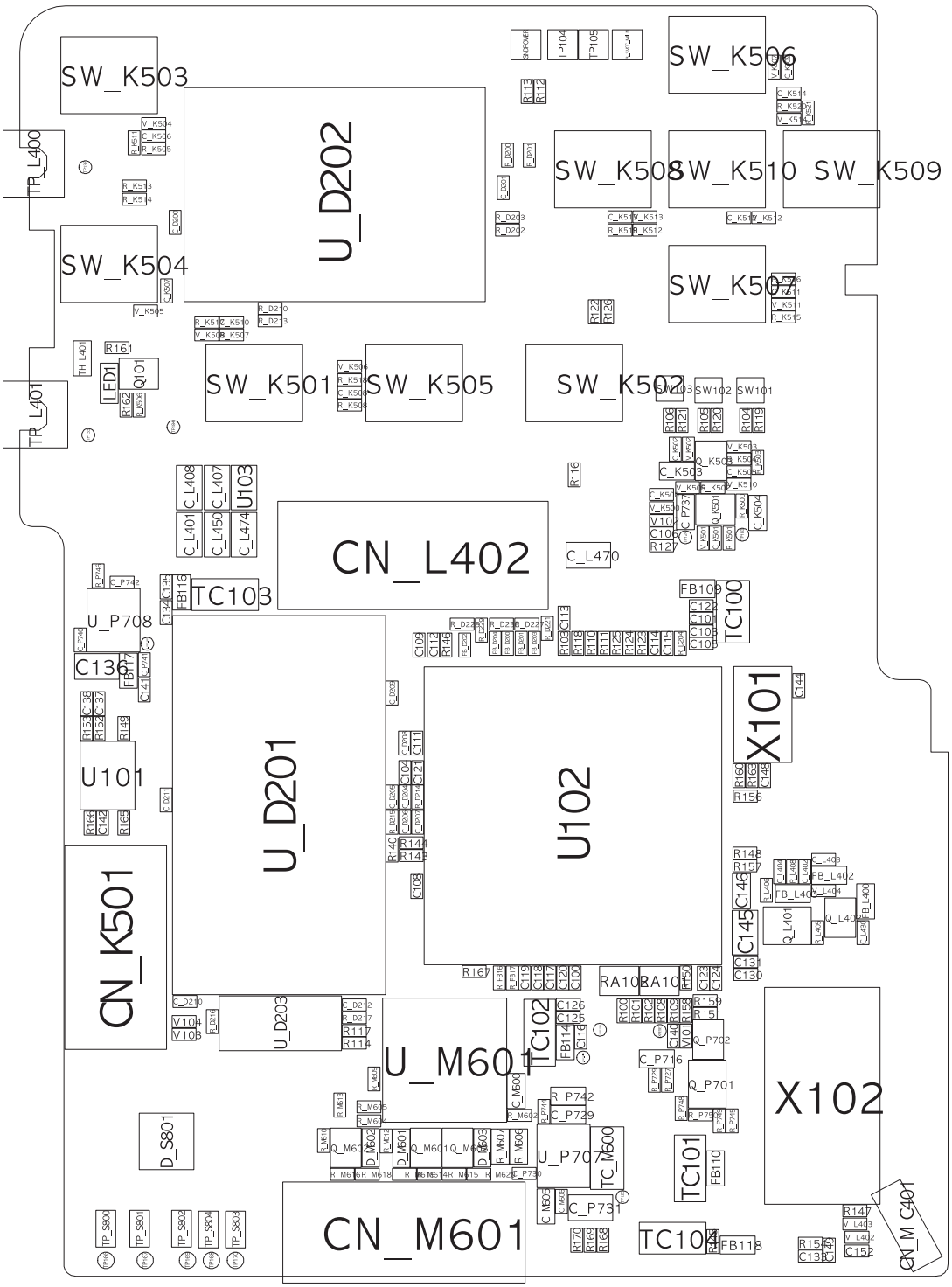
c... Turn on the camera and the data of EEPROM will be copied to the camera.

d... When the copy is complete, the camera is turned off automatically.

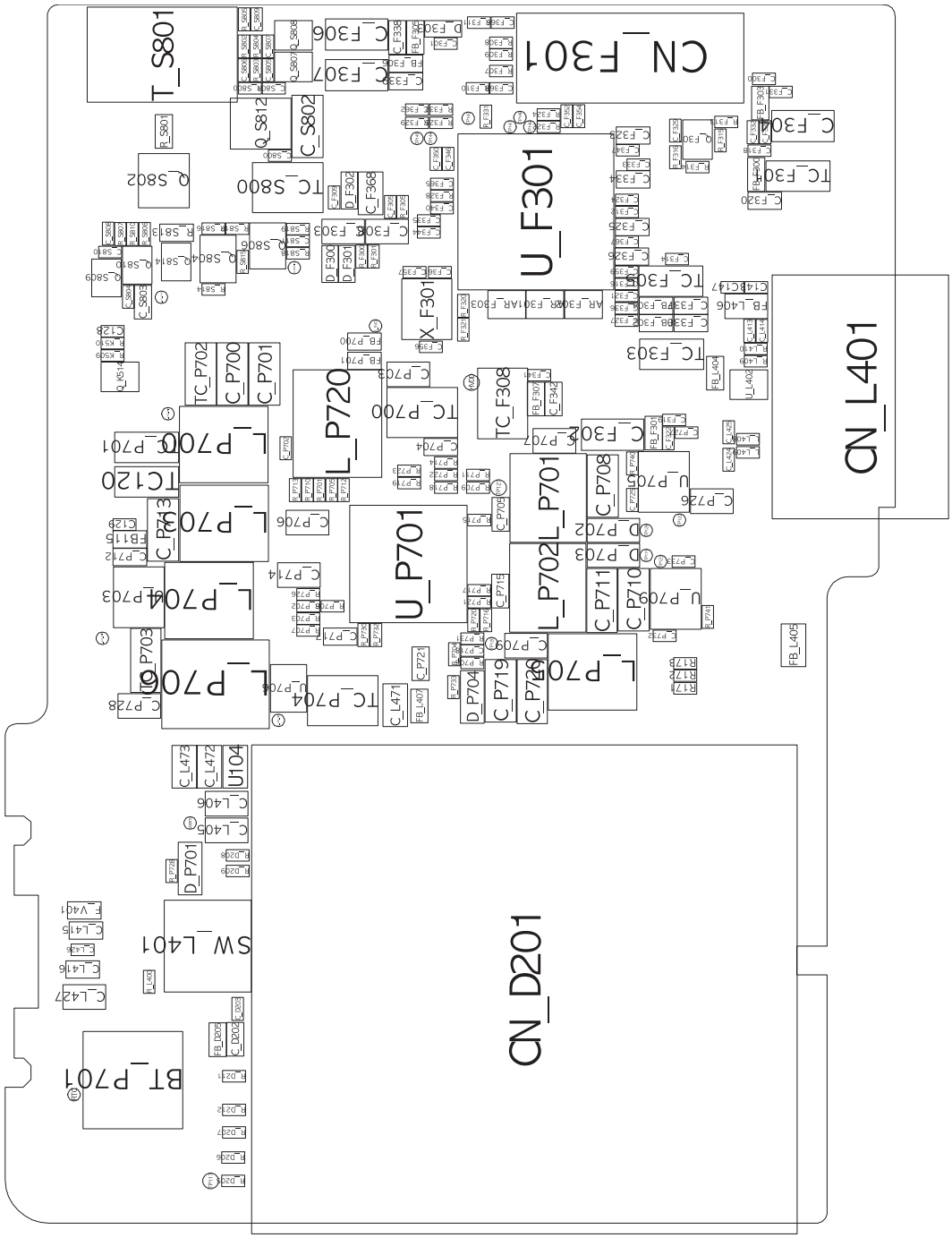
Ⅳ. PATTERN DIAGRAM

1. PARTS ARRANGEMENT FOR EACH PCB ASS'Y

1) MAIN_TOP

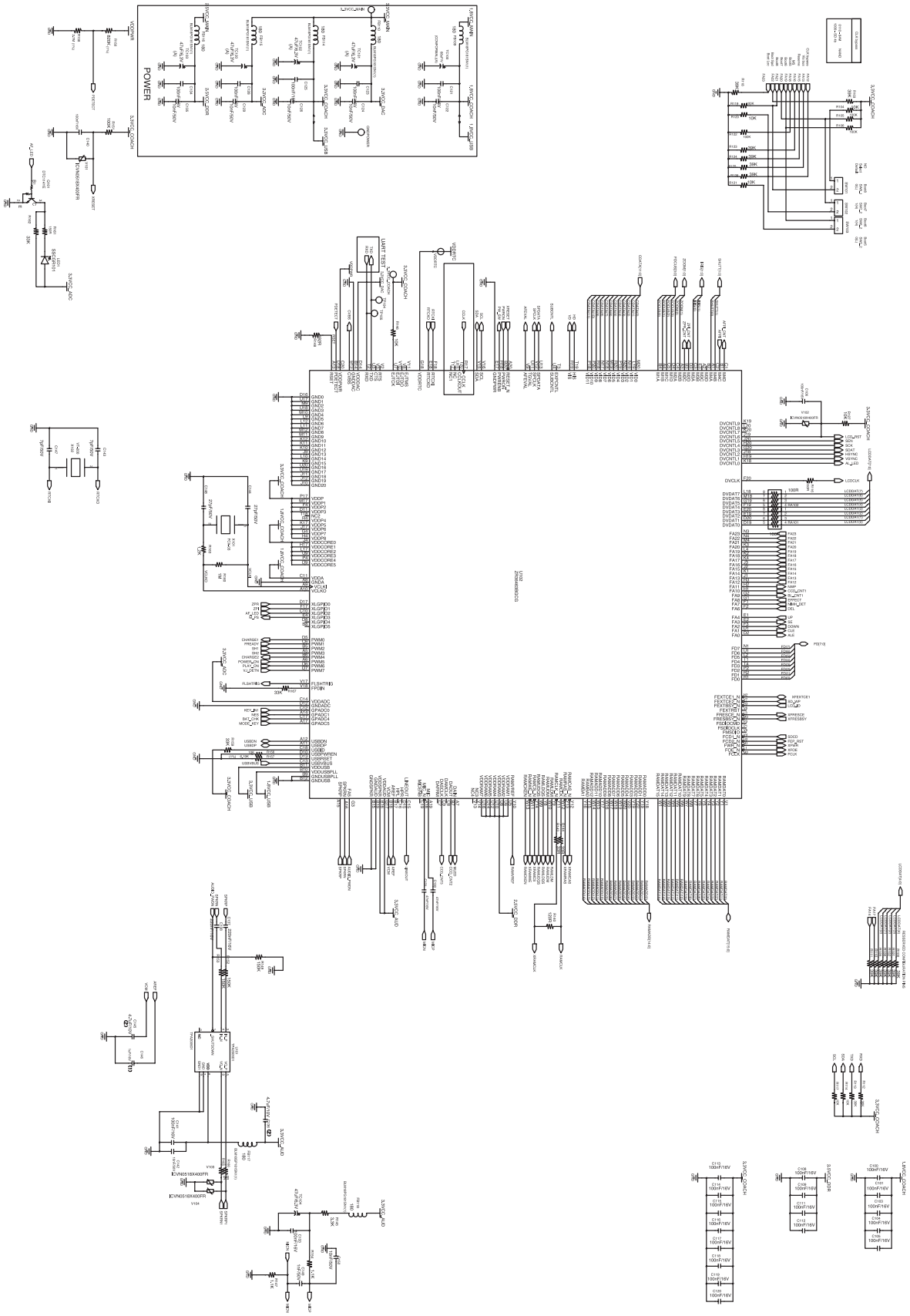


2) MAIN_BOTTOM

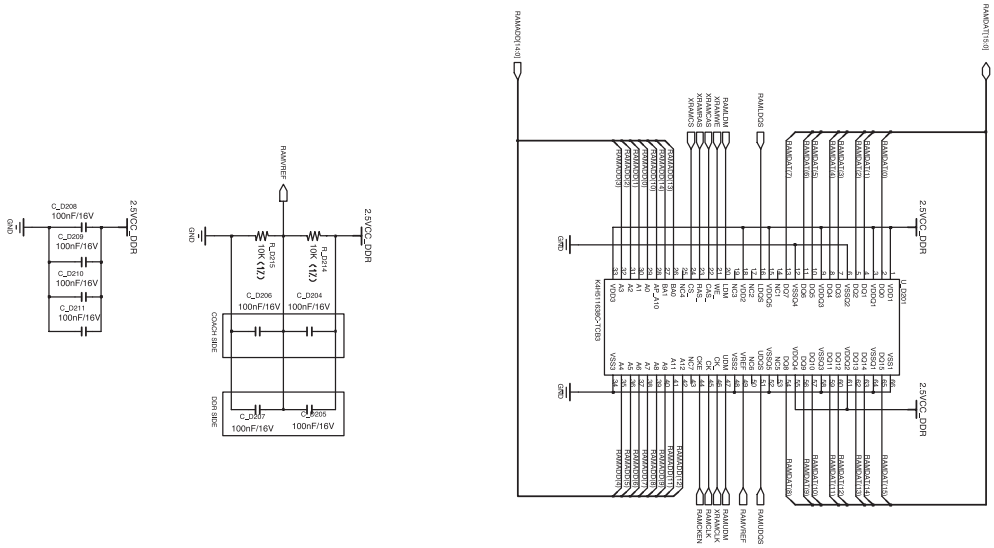


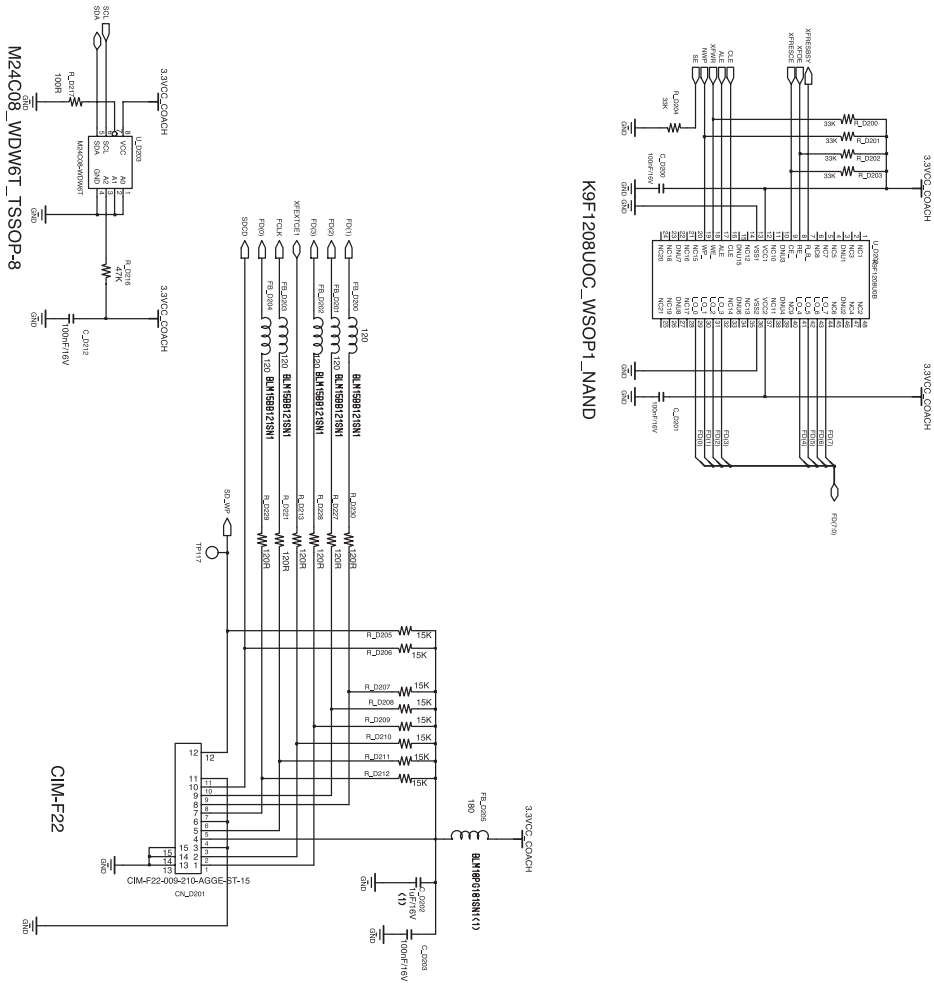
Ⅴ. CIRCUIT DIAGRAM

1) MAIN

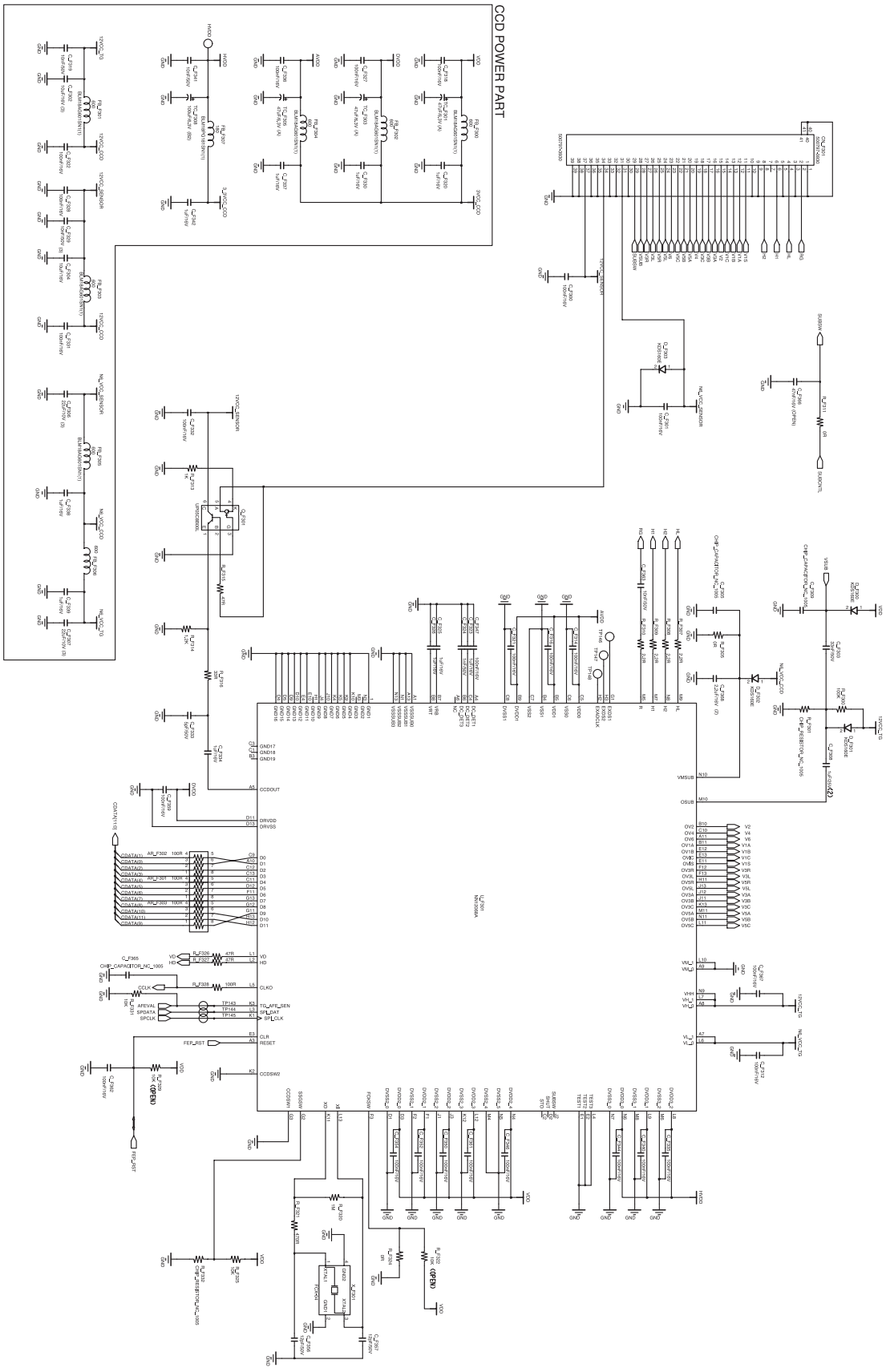


2) MAIN_DDR

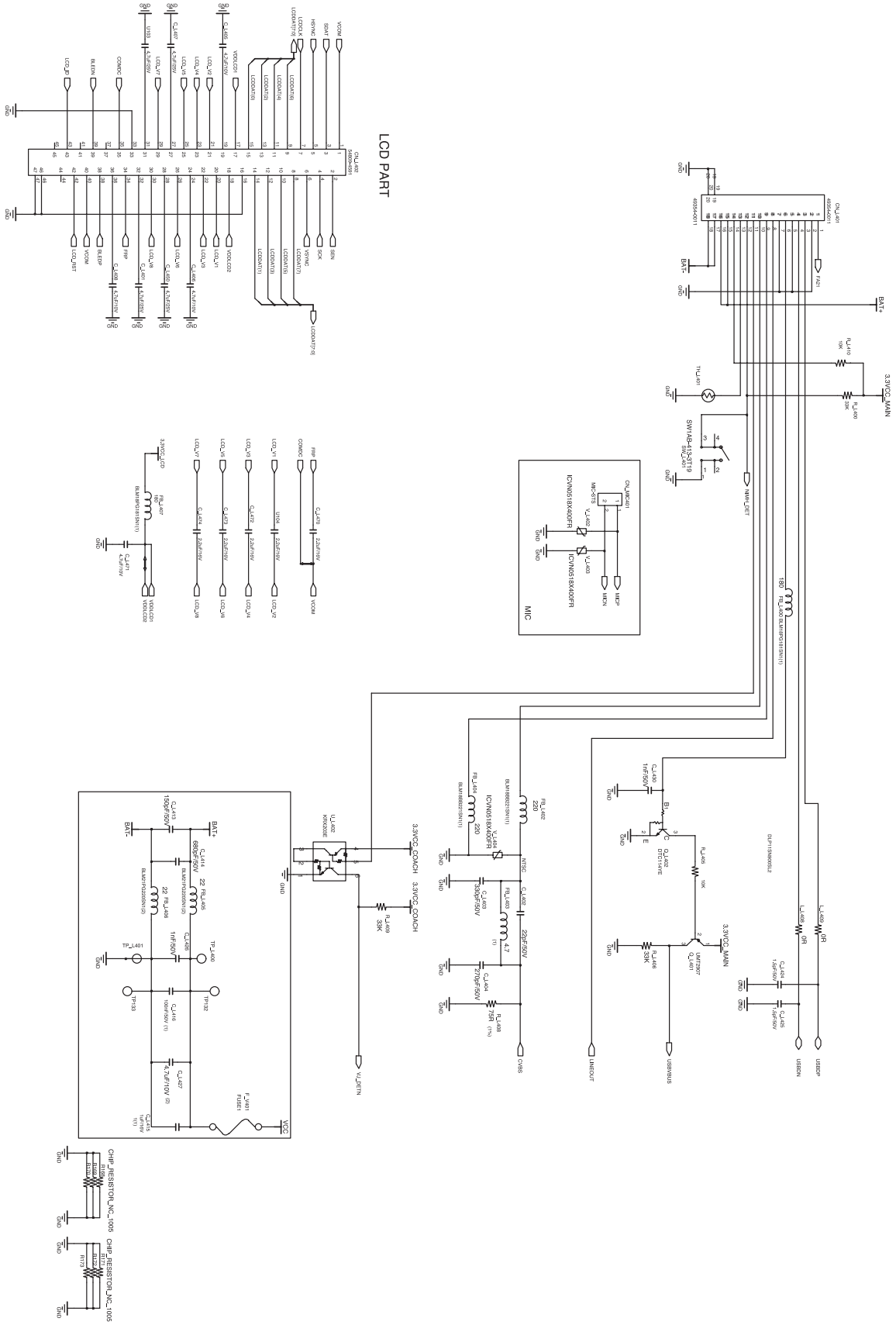



M24C08_WDW6T_TSSOP-8
K9F1208UOC_WSOP1_NAND
CIM-F22
CIM-F22-009-210-AGGE-ST-15
BLM18PG181SN1(1)

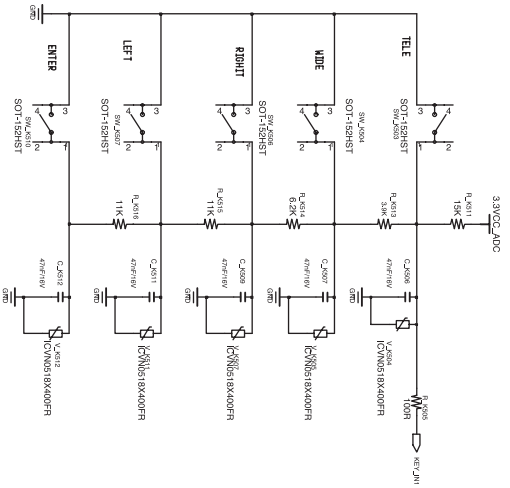
3) MAIN_CCD(FEP)

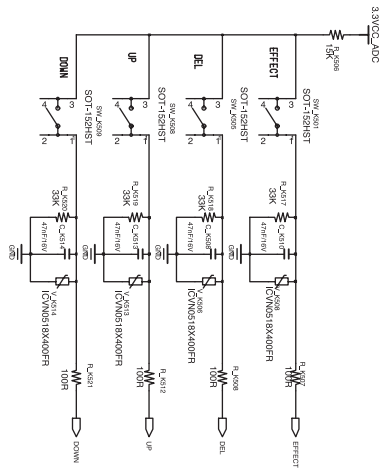


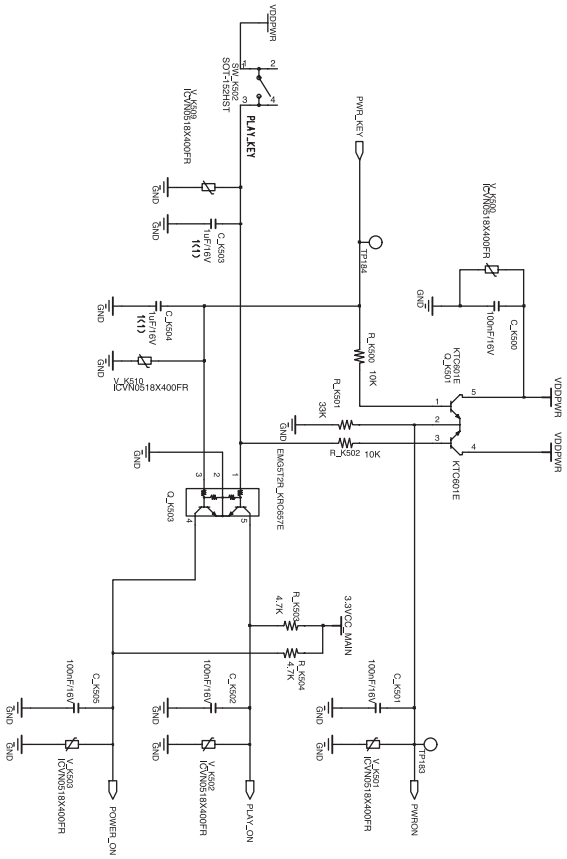
4) MAIN_I/O LCD

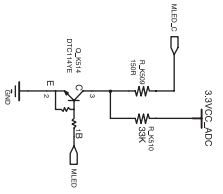

LCD PART
MIC
3.3VCC_MAIN
BAT+
BAT-
GND
VCC
3.3VCC_COACH
VL_RETN
LINEOUT
USBDP
USBDN
USBVBUS
CVBS
CHIP_RESISTOR_MC_1005
CHIP_RESISTOR_MC_1005

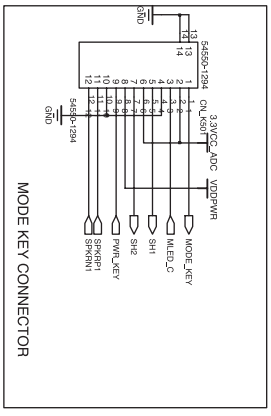
5) MAIN_KEY


ENTER
LEFT
RIGHT
SIDE
TELE
SW_K504
SW_K505
SW_K506
SW_K507
SW_K508
SOT-152HST
R_K511 15K
R_K513 3.3K
R_K514 6.2K
R_K515 11K
R_K516 11K
3.3VCC_ADC
C_K506 C_K507 C_K508 C_K509 C_K510 C_K511
47nF/16V
V_K506 V_K507 V_K508 V_K509 V_K510 V_K511
ICVN0518X400FR
R_K505 100R
KEY_IN1
GND

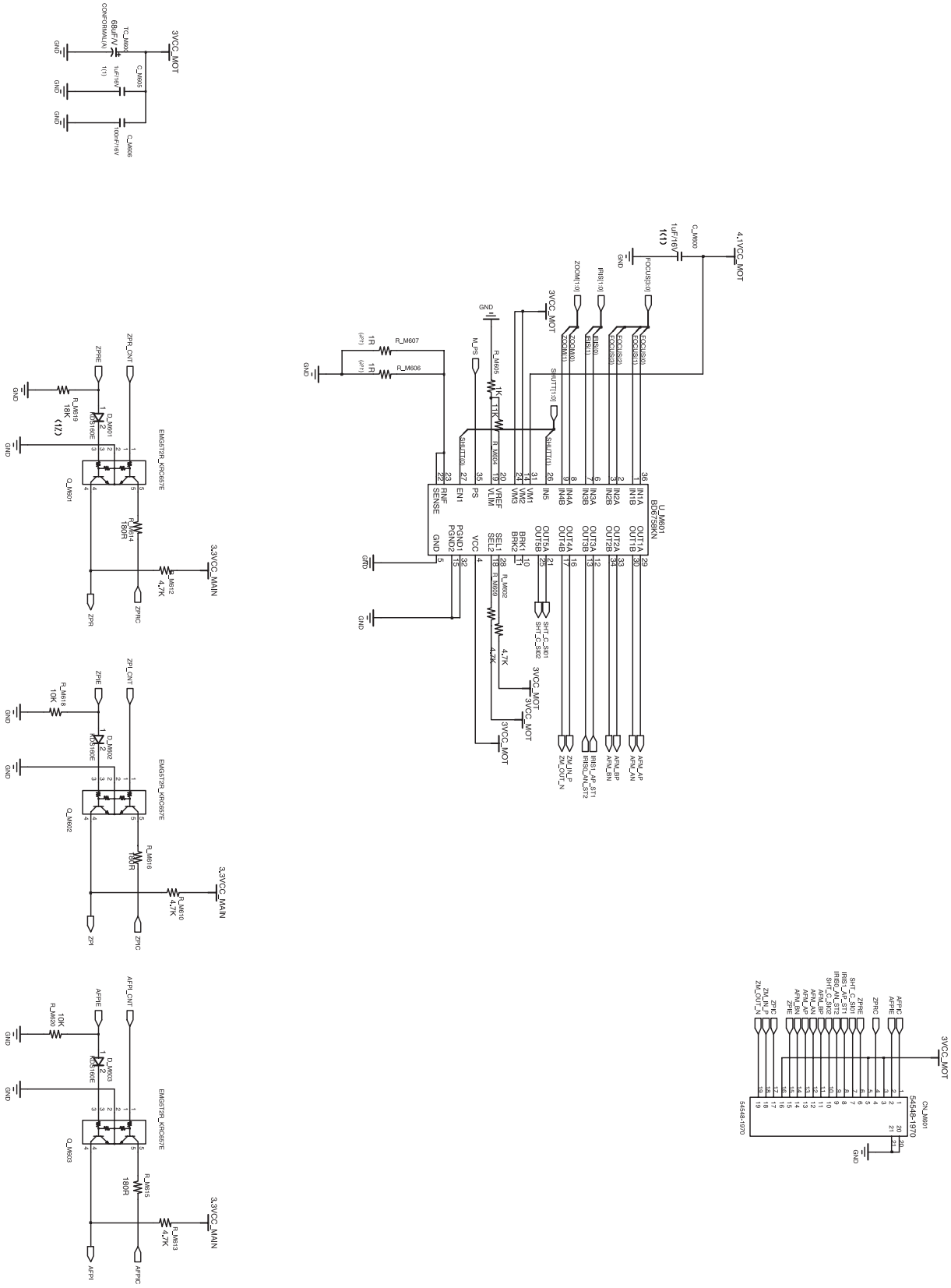

MENU
UP
DEL
EFFECT
SW_K509
SW_K510
SW_K511
SW_K512
R_K508 33K
R_K517 33K
R_K518 33K
R_K519 33K
R_K520 33K
C_K513 C_K514 C_K515 C_K516 C_K517
47nF/16V
V_K512 V_K513 V_K514 V_K515 V_K516 V_K517
ICVN0518X400FR
R_K507 100R
R_K508 100R
R_K512 100R
R_K521 100R
EFFECT
DEL
UP
DOWN


VDDPWR
SW_K502
SOT-152HST
PLAY_KEY
V_K500 V_K501 V_K502 V_K503 V_K504 V_K505 V_K506 V_K507 V_K508 V_K509 V_K510
ICVN0518X400FR
C_K503 1nF/16V
C_K504 1(1)
C_K500 100nF/16V
C_K501 100nF/16V
C_K502 100nF/16V
C_K505 100nF/16V
C_K506 1(1)
R_K500 10K
R_K501 33K
R_K502 10K
R_K503 4.7K
R_K504 4.7K
3.3VCC_MAIN
TP184
TP183
PWR_KEY
Q_K501 KTC601E
Q_K503 EMG5T2R_KRG5/5TE
KTC601E
PWRON
PLAY_ON
POWER_ON
GND

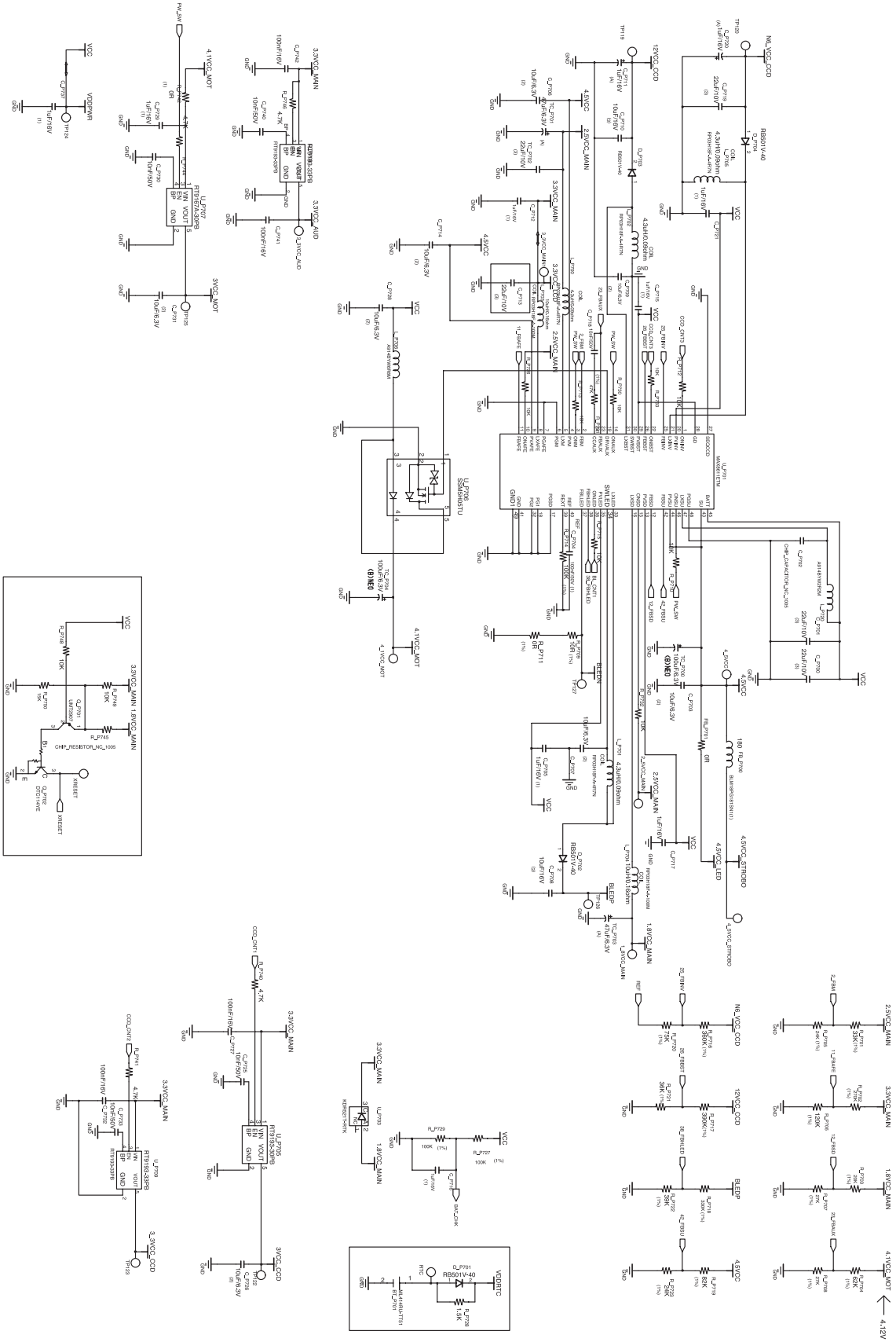

MLED_C
R_K509 100R
R_K510 33K
Q_K514 DTC114YE
3.3VCC_ADC
MLED
GND


MODE KEY CONNECTOR
CN_K501
54550-1294
3.3VCC_ADC
VDDPWR
MODE_KEY
MLED_C
SH1
SH2
PWR_KEY
SPKRP1
SPKRN1
GND

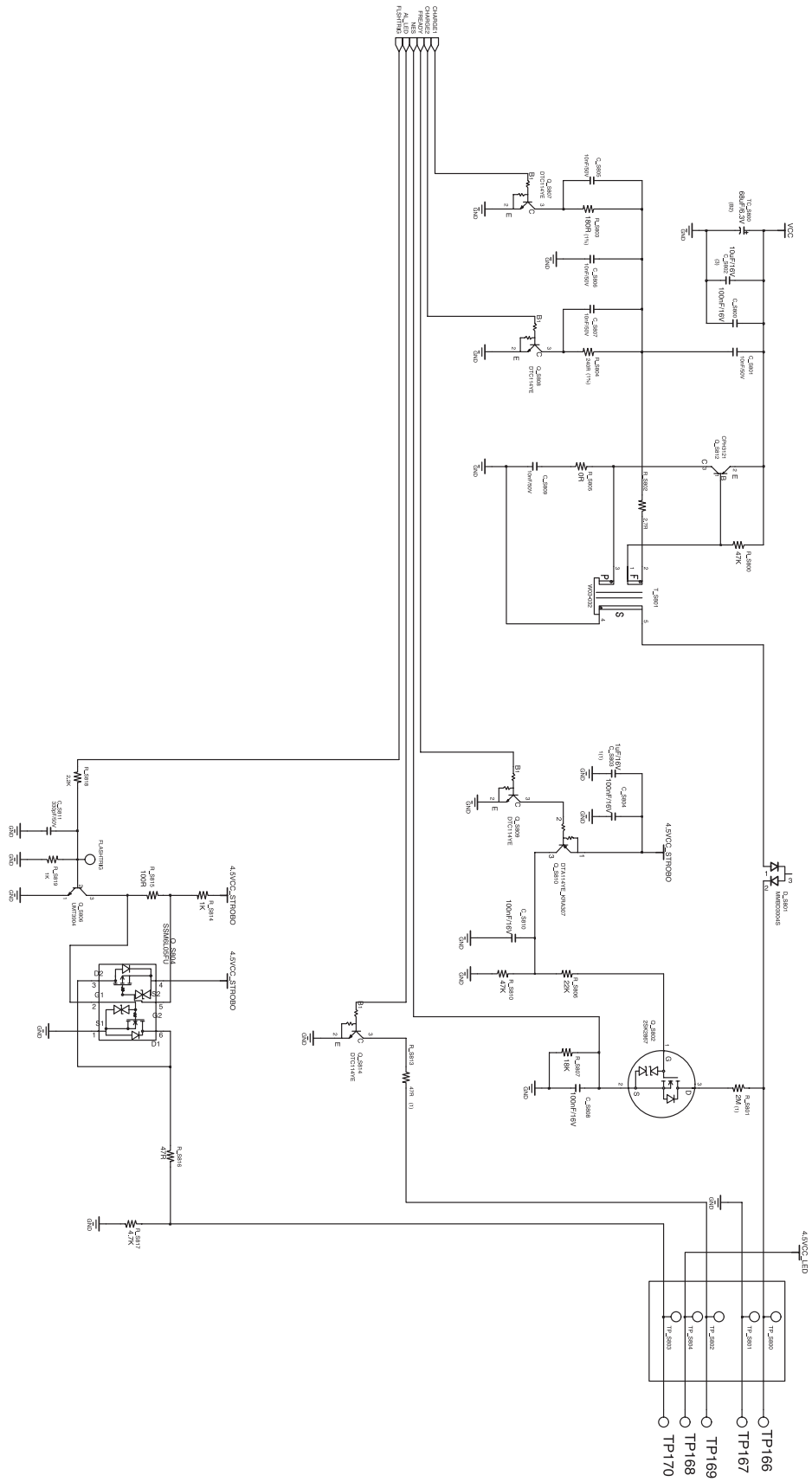
6) MAIN_LENS(MOTOR)



7) MAIN_POWER



8) MAIN_STROBO



Ⅵ. SERVICE INFORMATION

1. The order of disassembly and assembly

■ Caution

1. Do the disassembling and assembling camera where the blocking static electricity mat is on the table.

2. When handling the major PCBs of camera, please wearing the band which cuts off the electric current on the wrist.

3. When handling the major parts, be careful of below caution.

Parts	Caution
F PCB type	When assembling the F PCB to the CONNECTOR by using pincette, be careful of tearing and hooking.
CCD & IR CUT	Be careful of the handprinting while handling them. Using the pincette which has soft tip. The spot will be shown by using normal alchol when cleaning them. Do the repairing where is no dust.
PCB type	Wearing the band which cuts off the electric current and do the reparing where the blocking static electricity mat is on by preventing the defect of parts.
CONTACT type	Be careful of defect and change by pincette.

■ Disassembly

1. Remove 2 screws.

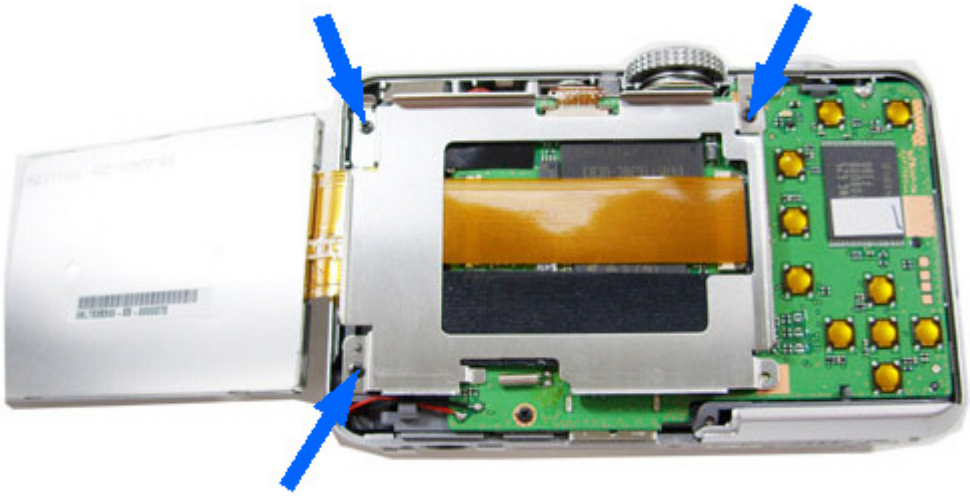
2. Remove 2 screws.

※ Notice : distinguish by a difference of length.

3. Remove 4 screws.

4. Disassemble the BACK COVER.

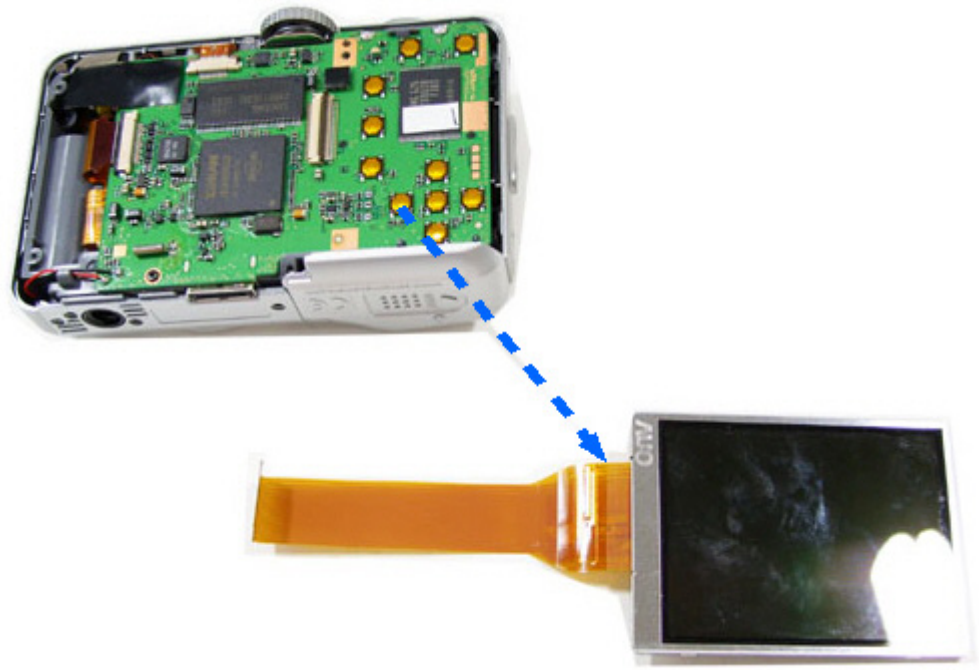
5. Remove 3Äscrews.



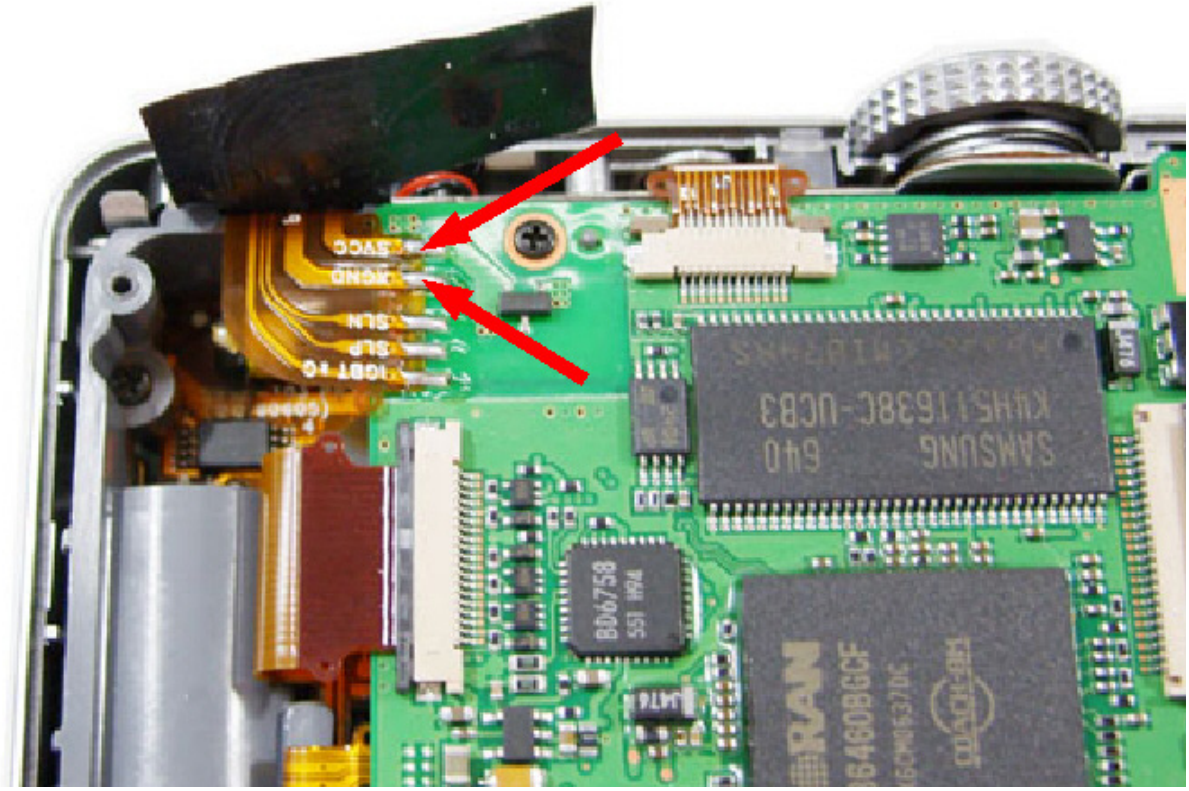
6. Lift up the LCD and move to the direction as shown.

7. Disassemble the PCB from the connector.

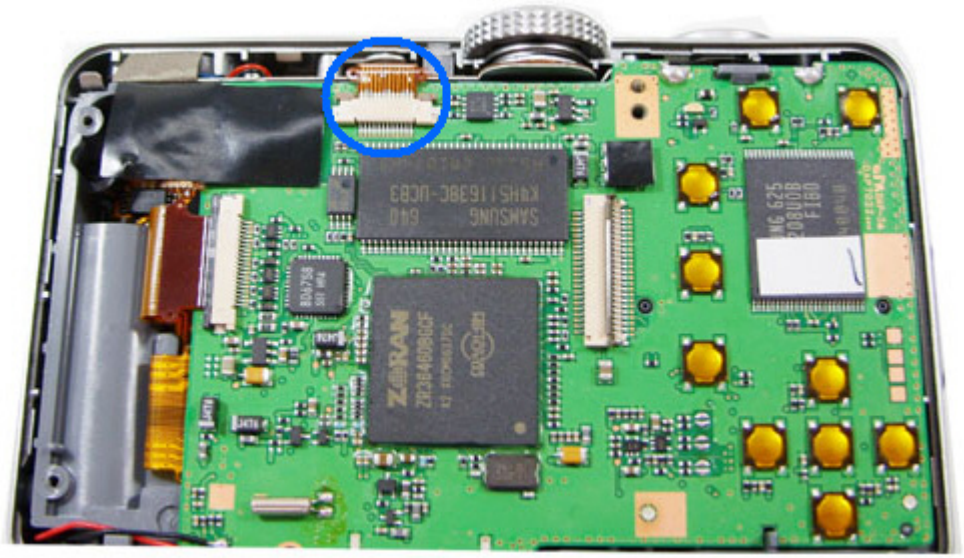
8. Disassemble the LCD.



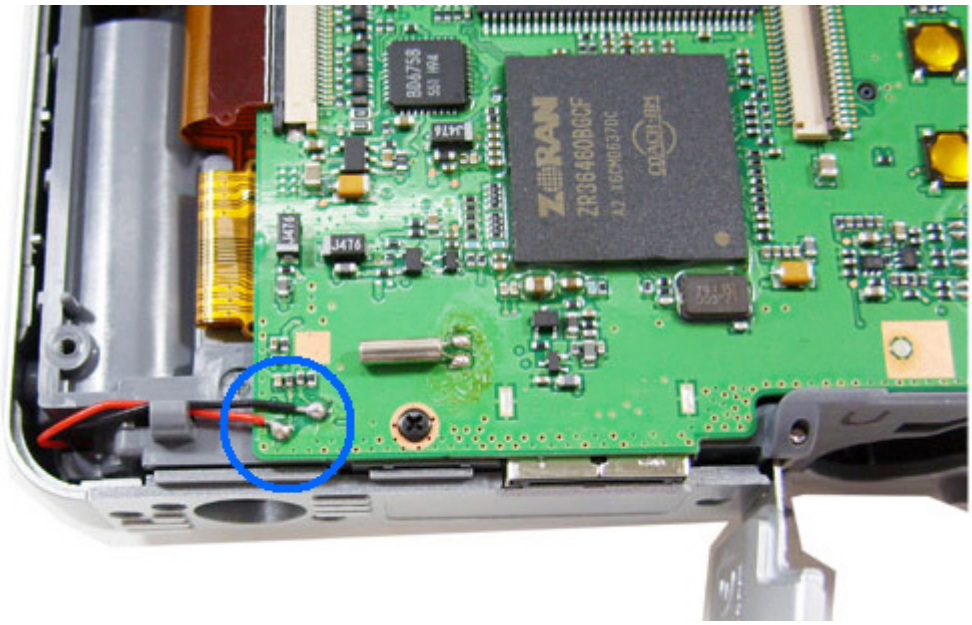
9. **Caution** : Before disassembling, discharged the MAIN CONDENSOR first.



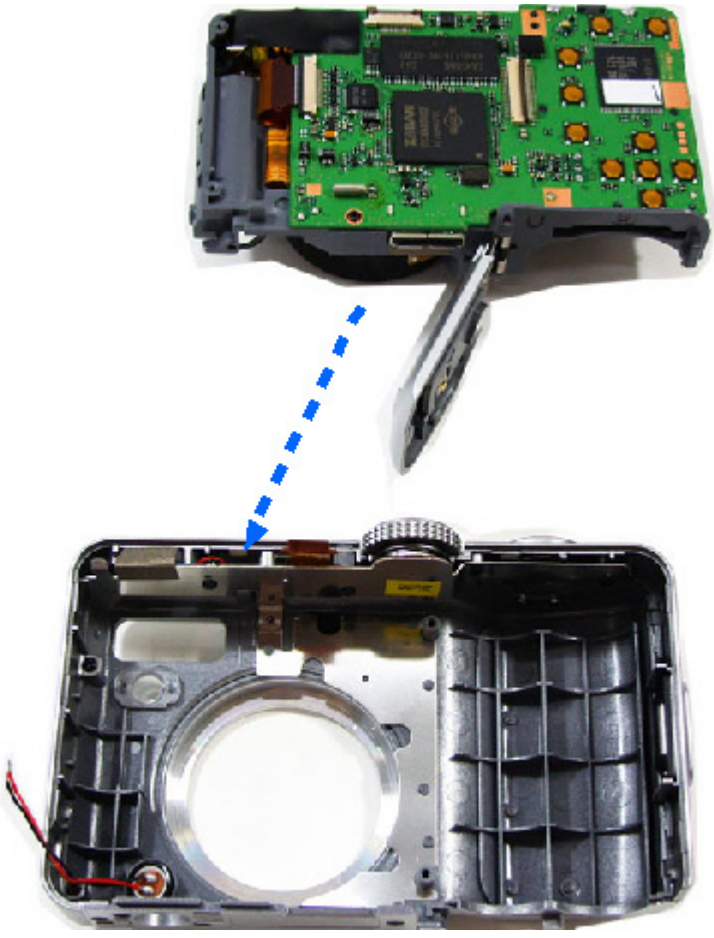
10. Disassemble the PCBÄfrom the connector.



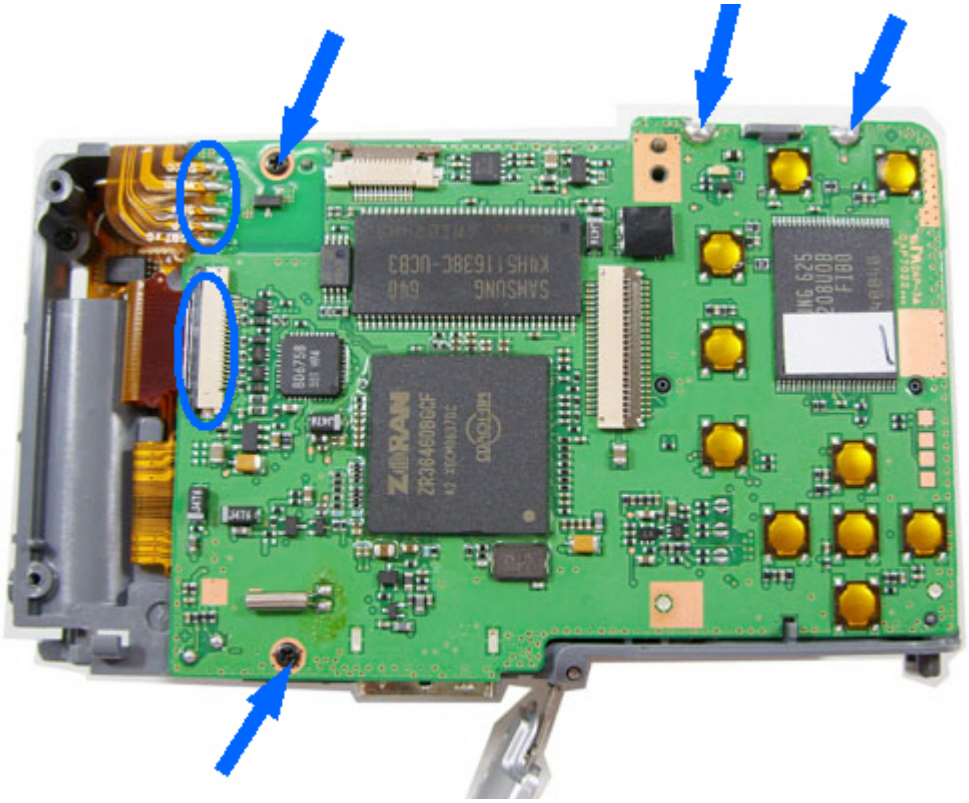
11. Remove 2 wired (Black, Red).



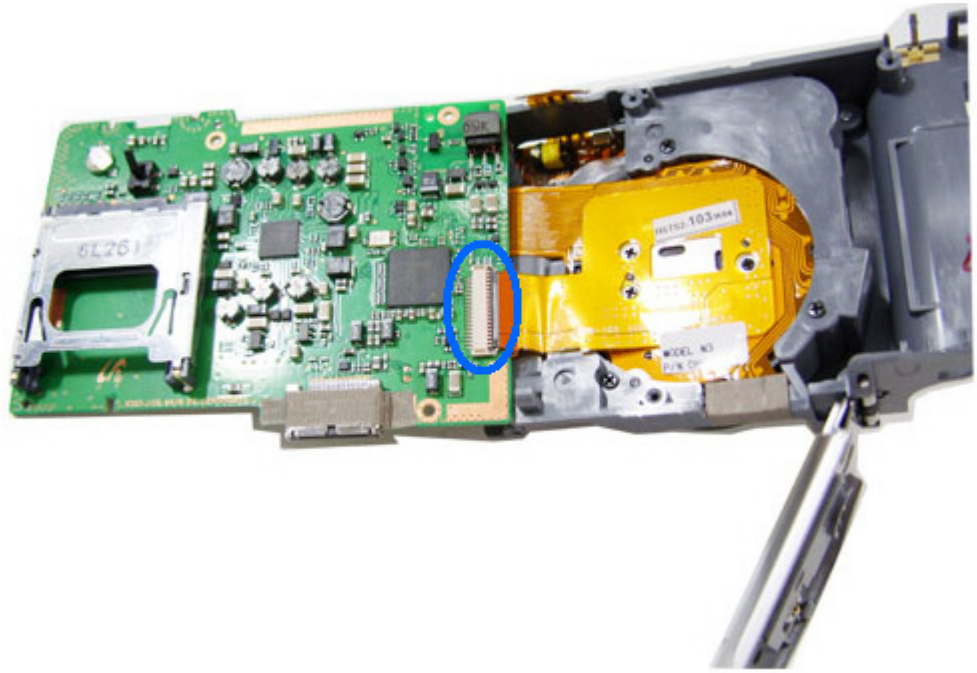
12. Disassemble the FRONT COVER.



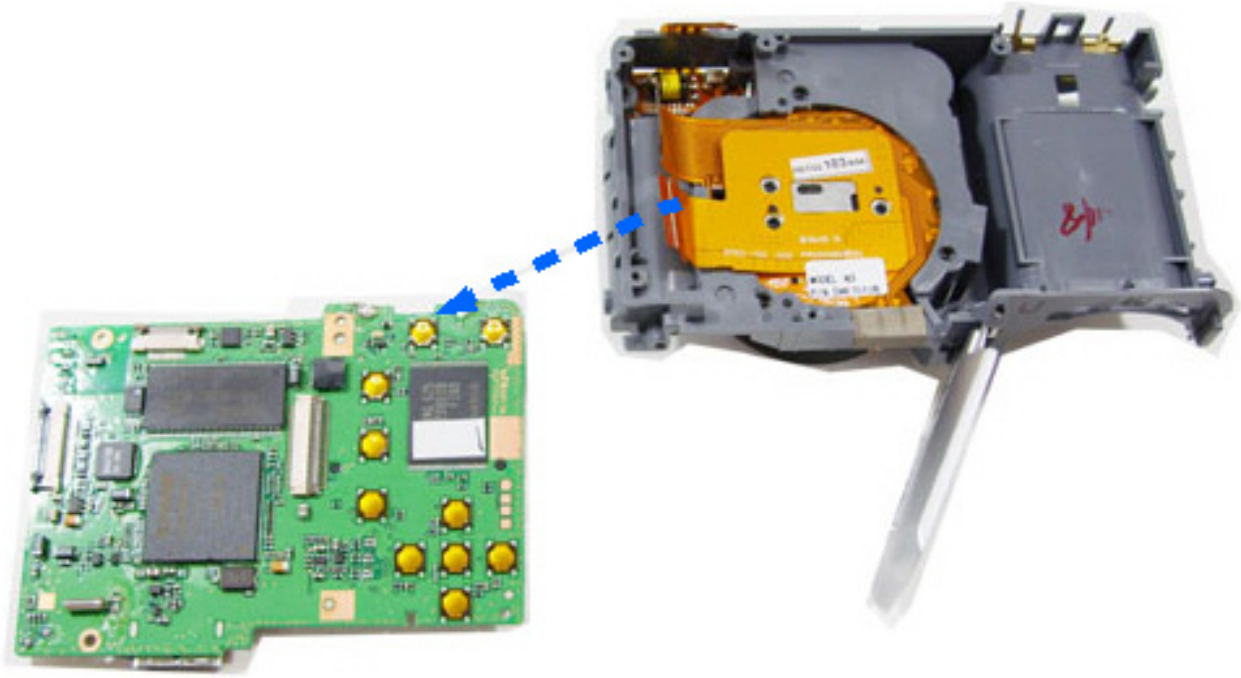
13. No.1 : Before removing the PCB soldering, discharge the main condenser.
    No.2 : Remove the 2 soldering of battery contact and 2 screws.
    No.3 : Disassemble the connector.



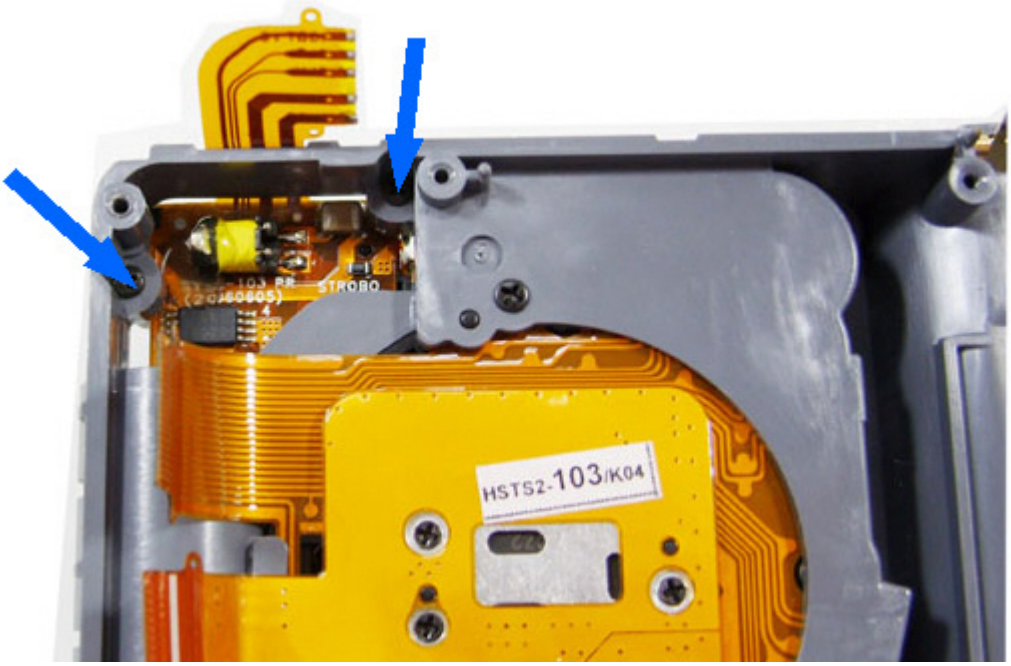
14. Disconnect the CCD PCB from the connector.



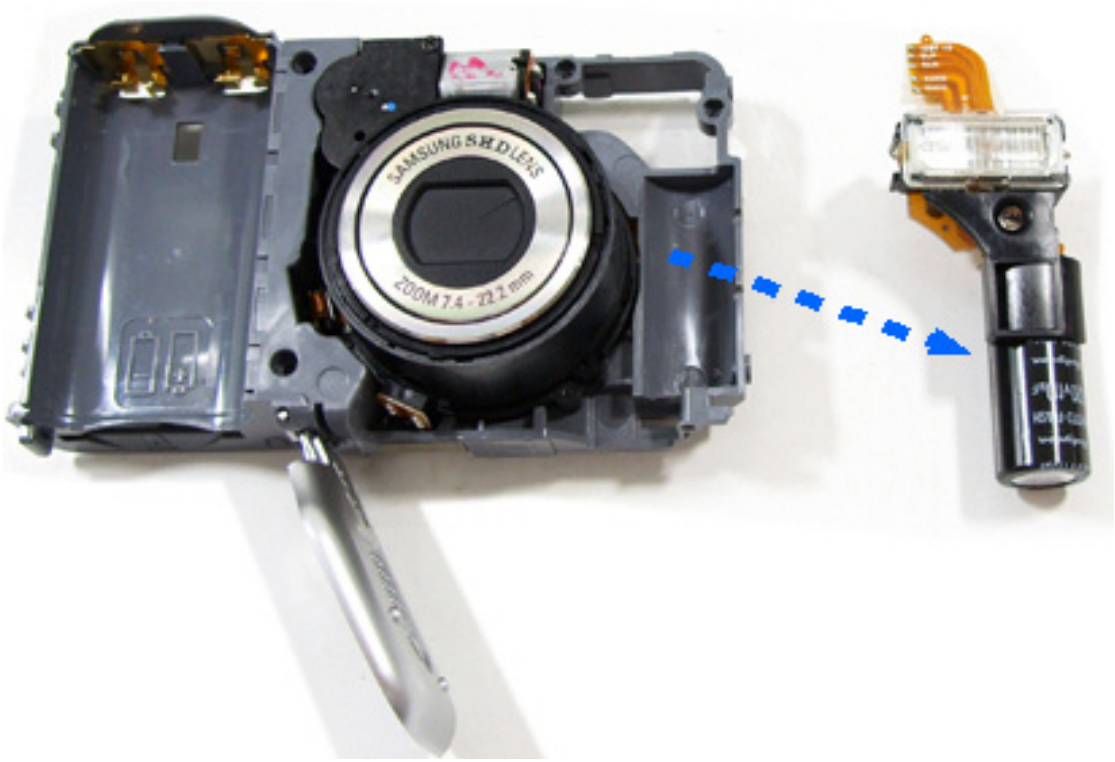
15. Disassemble the MAIN PCB.



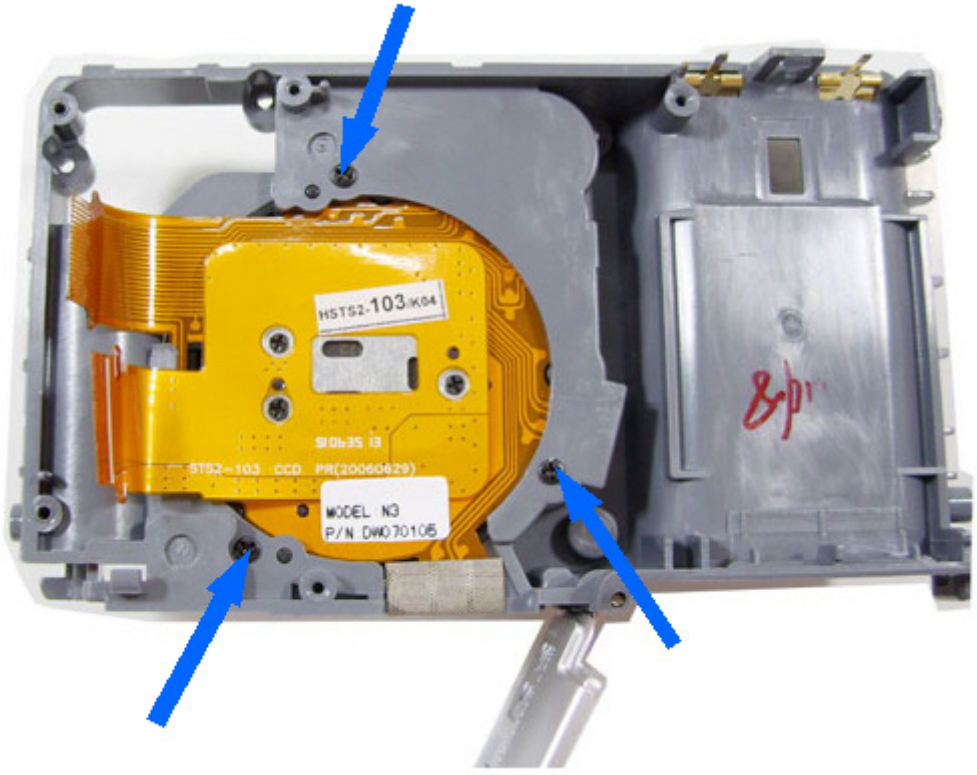
16. Remove 2 screws.



17. Disassemble the STROBE PCB.

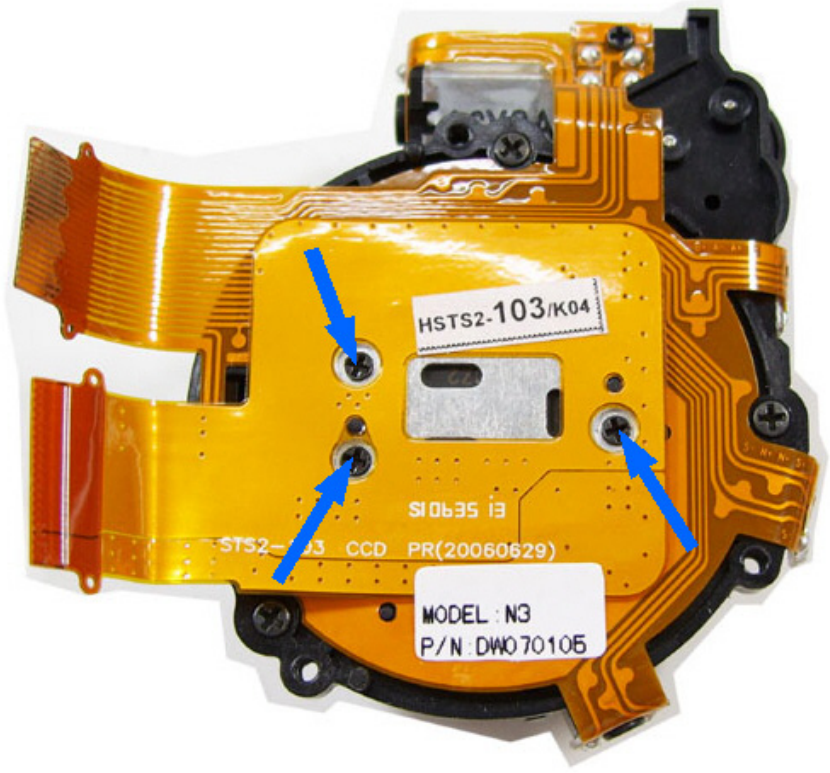


18. Remove 3Äscrews.



19. Disassemble the Barrel ASSY.

20. Remove 3Äscrews.



21. Disassemble the CCD FPCBÄASSY.